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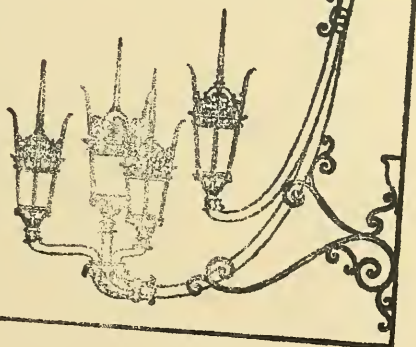
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The Commonwealth of Massachusetts

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REPORT

OF AN

INVENTORY AND PLAN FOR DEVELOPMENT

OF THE

NATURAL RESOURCES OF MASSACHUSETTS

same as R41 M

JANUARY, 1958

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PART II

PUBLIC OUTDOOR RECREATION

1957

DEPARTMENT OF NATURAL RESOURCES

THOMAS A. FULHAM, *Chairman*

RICHARD BORDEN

ROBERT P. HOLDSWORTH

DONALD B. MILLER

ROBERT LIVERMORE, JR.

FRANCIS W. SARGENT, *Commissioner*

RAYMOND J. KENNEY, *Director, Division of Forests and Parks*

EDWARDS, KELCEY AND BECK

Consultants

BOSTON, MASSACHUSETTS

Dec 28, 1966
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The Commonwealth of Massachusetts

LETTER OF TRANSMITTAL.

DEPARTMENT OF NATURAL RESOURCES,
15 ASHBURTON PLACE, BOSTON 8, December 3, 1957.

To the Honorable Senate and House of Representatives.

In accordance with the provisions of chapter 471 of the Acts of 1955, as amended by chapter 591 of the Acts of 1956, I have the honor to transmit herewith the report of the Department of Natural Resources on "An Inventory and Plan for Development of the Natural Resources of Massachusetts, Part II, Public Outdoor Recreation."

Respectfully submitted,

FRANCIS W. SARGENT,
Commissioner.

The Commonwealth of Massachusetts

LETTER OF THE COMMISSIONER.

DEPARTMENT OF NATURAL RESOURCES,
15 ASHBURTON PLACE, BOSTON 8, June 10, 1957.

To the Honorable Senate and House of Representatives in General Court Assembled.

Chapter 471 of the Acts of 1955, titled "An Act relating to the Further Development of the Public Forests, Parks and Other Lands of the Commonwealth," directs the Department of Natural Resources to make an inventory and long-range plan for the development of the natural resources of Massachusetts.

The Department, through its Division of Forests and Parks, was authorized by the act to make an inventory of the forests and other natural resources in possession of the Commonwealth, whether forested or not, the species, age, rate of increase and present volume of timber, the area of unused land found in possession or control of any board, officer or institution of the Commonwealth. The inventory is also to include the educational, recreational, watershed protective or other civic purposes for which such areas or water included therein are now used.

Upon receipt of such inventory the Department is instructed by the act to prepare a long-range plan, having as its objectives: (1) maximum return from merchantable timber, (2) adequate watershed protection, ground water supplies and flood control, (3) to develop and maintain . . . for the recreation of the people . . . the enjoyment of undisturbed natural surroundings. The act further required that the Department "shall study the use and further development of all public forests and lands . . . the acquisition of additional areas to make existing properties more serviceable to the public. . ." The final report was called for on or before the first Wednesday in December, 1956.

To carry out the provisions of the act the sum of \$20,000 was appropriated. The firm of Edwards, Kelcey and Beck, Consulting Engineers of Boston, was engaged as consultants.

It was apparent at the outset that the inventory, study and long-range plan called for by the act could not possibly be accomplished in the time allowed nor within the funds appropriated. Therefore, it was decided that the inventory would be progressed as far as possible, and that a preliminary study be made of all of the factors to determine the proper procedure to bring the overall program to a suitable conclusion.

In their preliminary report designated as Part I, dated June 15, 1956, the consultants summarized in considerable detail the State's natural resources under headings of Land and Its Uses, Forests, Water Resources, Ocean Beaches, Inland Beaches, Minerals and Wildlife. The preliminary report treated the related resources under Recreation in the State Parks and Forests, Historic and Scenic Attractions and Tourist Routes and Travel. It pointed out the need for development and management of the natural resources and the economic importance of the vacation-travel business.

Based upon the findings of the preliminary report, the consultants recommended that the time for the filing of the final report be extended to December, 1957, and that the sum of \$300,000 be appropriated for the purpose of completing the study and preparation of the long-range plan.

Chapter 591 of the Acts of 1956 amended the previous act by extending the time for completion to the first Wednesday in December, 1957. An appropriation of \$50,000 was provided. The firm of Edwards, Kelcey and Beck was engaged to continue the work.

Since these funds were not sufficient to complete the study of all the resources as directed by chapter 471, Arthur T. Lyman, the then Commissioner, made the decision to concentrate on a program of acquisition and development of state forests and parks for the purpose of public outdoor recreation. In my opinion, the findings of the attached report fully confirm the wisdom of this decision. Under the terms of their contract the consultants have presented a report titled "Part II, Public Outdoor Recreation." It was preceded by an interim report dated January 27, 1957, which called particular attention to the desirability of immediate acquisition of certain areas as state parks or forests. The "Part II" report, with the interim report as an appendix, is hereby submitted in accordance with the provisions of chapters 471 and 591.

Our public recreation facilities in Massachusetts fall pitifully short of meeting the demands. If they are inadequate today, how grossly deficient will they be five, ten or twenty years from now unless we do something about it? With an increasing population, better working conditions, greater income, more leisure time, a greater urge for outdoor life, the demands upon our facilities are due to increase by leaps and bounds. It is estimated that to meet the public recreation demand of 1977, present capacities will have to be increased fourfold.

We are greatly in need of a comprehensive, well co-ordinated master plan of natural resource development. First, emphasis should be placed upon the recreation phase because of the present critical shortages and the anticipated demands of the future. As pointed out by the interim report, and further confirmed by the Part II report, there is grave danger that many ideal sites for recreation areas will be sold for commercial or private development. This is a trend which has been going on for more than a generation. The warnings of those most familiar with the situation have, for the most part, gone unheeded. The longer we delay, the scarcer will become the available sites and the more prohibitive the prices.

The report recognizes the seriousness of the problem and recommends a system of priorities of acquisition to assure that a proper number of sites will be acquired at the earliest possible moment. Our acquisition procedures could be greatly accelerated if the recommendation contained in the report, to grant the Department the right to take property by eminent domain for park purposes, is adopted.

The fourfold growth of our capacities over a twenty-year period should not be a "straight line" process. Because of the present deficiencies every possible effort should be made to accelerate our development program so it will equal the demands within the next five years.

The so-called vacation-travel business is now ranked as our third most important industry in Massachusetts. It is estimated that nearly three million vacationers spend more than \$400 million here each year. No effort should be spared to preserve and increase this mighty important source of income to the Commonwealth and its people.

Upon good conservation practices will depend the enjoyment of the natural resources by the users of our state facilities. The impoundment of streams at strategic locations could create small lakes or ponds where needed for recreation purposes.

In the interest of conservation the recommendation that all areas developed shall be kept practically in their natural state will be adhered to rigidly. There need be no fear on the part of any person or community that the establishment by the State of a public recreation facility will lead to a "honky-tonk" development. The exact opposite will be the policy of this Department. It is hoped that local communities will assist the Department by giving assurance that areas contiguous to well-conducted state reservations will, through proper zoning or other regulations, be maintained at a high level of social and other uses. There is evidence that co-operative local participation in the public outdoor recreation field could be mutually beneficial to the State and the communities.

To accomplish the recommended program of acquisition and development will cost a lot of money. One hundred million dollars for a twenty-year program may, at first glance, seem a staggering sum. But when we weigh the costs *versus* the benefits the scales tip abruptly to the benefits side. Can the health, happiness and well-being of Massachusetts' citizens and the millions of vacationers from other States and countries during the next twenty years be measured in dollars and cents? Can a price tag be placed upon the value of the natural resources that will be conserved?

Financed by bond issues as needed throughout the twenty-year period, with a gross amortization period of thirty years, the program would not place an unreasonable burden upon the State's finances at any time. Efficient management would guarantee that income from the use of the facilities would offset, to a considerable degree, the operational and maintenance costs.

In this day, when the need for true economy in government is so vital, it is well to review carefully every proposal which tends to make more demands upon the tax dollar. By certain standards, as pointed out in the report, Massachusetts can better afford to make expenditures for recreation facilities than some of her sister States. We are building a magnificent system of highways which not only attracts the visitors from other States, but also encourages our own citizens to travel within the State. Unless we keep abreast of the

trend of the times, our visitors and our own citizens will use our highways simply as cross-state routes to other States where better facilities are provided. So the question, "Can we afford to start this program?" should be amended to read, "Can we afford NOT to start it?"

Recreationwise, Massachusetts has everything! The vacationist, the traveler, the camper, the sportsman, the day-tripper, the beach goer, the picnicker, the nature lover — each can find what he seeks: from the Berkshires to Cape Cod; spectacular mountains, rolling hills, majestic rivers, surging streams, broad valleys, deep gorges, stately forests, serene countryside, fertile farms, green pastures, quaint towns, improved highways, country lanes, industrial centers, sprawling cities, picturesque vistas, placid lakes and ponds, safe harbors, white sand beaches, as well as rugged and rocky coastline, unspoiled sand dunes, abundance of fish, game and wildlife, together with countless points of scenic, historic and cultural interest. Most aptly this Commonwealth has been called the "Cross Section of America."

Drafts of the following proposed legislation to carry the recommendations of the report into effect appear in an appendix:

1. An Act relative to the Acquisition of Lands for State Parks and Forests.
2. An Act providing for the Development of State Parks, State Forests and Recreation Areas by the Department of Natural Resources.
3. An Act extending the Time within which the Department of Natural Resources shall file its Report on Forests and Other Natural Resources of the Commonwealth.

These recommendations constitute a pattern for the acquisition of public lands and their protection and development for the enjoyment and use by the public in the foreseeable future.

The Board of Natural Resources and the Commissioner are in full agreement that a comprehensive program should be initiated immediately with these recommendations as a general basis.

Respectfully submitted,

FRANCIS W. SARGENT,
Commissioner of Natural Resources.

EDWARDS, KELCEY AND BECK
CONSULTING ENGINEERS

470 ATLANTIC AVENUE,
BOSTON 10, MASS., June 7, 1957.

MR. FRANCIS W. SARGENT, *Commissioner, Massachusetts Department of Natural Resources, 15 Ashburton Place, Boston, Massachusetts.*

DEAR COMMISSIONER SARGENT: — In accordance with our agreement of November 5, 1956, we are pleased to submit our report on an Inventory and Plan for Development of the Natural Resources of Massachusetts, Part II, Public Outdoor Recreation.

We have investigated the present status of recreational facilities administered by various departments, boards and commissions of the Commonwealth. In addition, extensive factual information was gathered and analyzed. Field reconnaissance was conducted throughout the State to ascertain existing conditions.

This report presents our findings, together with pertinent maps, tables and charts, and our recommendations for a program of acquisition and development for park, forest and ocean beach lands.

We have appreciated the opportunity to undertake these studies, and are grateful for the cordial co-operation and valuable assistance of the Department, its staff and the officials of other public and private agencies.

Very truly yours,

EDWARDS, KELCEY AND BECK.

By GUY KELCEY,
Partner.

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The Commonwealth of Massachusetts

PUBLIC OUTDOOR RECREATION.

SCOPE AND PURPOSE.

A clear and complete understanding of the *scope* of this report depends on the realization that it is only one integral part of the comprehensive investigation of the natural resources of the Commonwealth authorized by chapter 471 of the Acts of 1955. That act calls for the preparation of a long-range plan by the Department of Natural Resources for the appropriate use and development of the natural resources for the benefit of the Commonwealth and its people. Part I, a generalized report on the natural resources as a whole, was submitted in June, 1956.

This report, Part II, treats the recreation-vacation travel phase of the problem, the future development of state parks, forests and beaches and their interrelation with the other resources of the State.

The *purpose* of the report is —

To determine the outdoor recreation needs of the people of Massachusetts and its visitors from other States.

To ascertain the adequacy of existing public recreation facilities to meet the needs.

To investigate and analyze the possibilities of expanding and improving existing public recreation areas.

To establish the availability of areas suitable for acquisition for state park or beach development.

To define the proper use and development of such areas, based upon suitability, location, accessibility and integral relation to the total program.

To ascertain the probable cost of a recommended program.

To consider the relationship between outdoor recreation and the vacation-travel industry and the important economic impact of the latter.

To recognize the distinction between public and private outdoor recreation, also their interrelationship.

To give to the Department of Natural Resources a properly documented long-range plan as a guide to the future planning of the recreation phase of natural resources conservation and development.

To recommend in detail a course of action by which the recommended program can be effectuated.

CONCLUSIONS AND RECOMMENDATIONS.

Conclusions.

The public outdoor recreation facilities of Massachusetts are inadequate to meet the needs of today. If they are inadequate today, they will be grossly deficient to meet the needs of the future.

The present inadequacy is the result of a combination of factors, such as increased population, more leisure time, more money to spend, better highways, better transportation, better health, longer life span and a greater urge for enjoyment of outdoor recreation. Future demand for public outdoor recreation opportunities will be affected by these same factors.

The funds that vacation travelers import into the Commonwealth contribute substantially to its economy. It is estimated conservatively that out-of-state visitors spend about \$250 million here annually. Twenty-five million of this represents net profit to the people, and the State receives another five million in taxes. The potential increase in this business warrants vigorous promotional activity. The opening of the Massachusetts turnpike and other highway improvements in this and neighboring States make such activity particularly opportune at this time.

Massachusetts needs a comprehensive, long-range program to provide ample and adequate facilities for outdoor recreation. Of primary importance in this program is the need for acquiring additional areas to supplement the scope of present facilities.

Suitable sites for public recreation are rapidly disappearing due to the continued increase in private and commercial development. Unless immediate steps are taken to acquire areas for recreation purposes it will be too late.

Besides providing recreational areas, the acquisition of property will facilitate conservation of the State's natural resources, which

includes preservation of the natural beauty of the many outstanding examples of unspoiled scenic landscapes.

The responsibility for the provision of recreational areas does not rest solely upon the State. There is opportunity for co-operative local participation. Further co-ordinated planning and clarification of the various levels of responsibility are essential to provide the most suitable arrangement of facilities which would yield maximum benefits to the people of the Commonwealth.

The effectuation of a program of acquisition and development could be expedited by the adoption of a system of priorities based upon needs and availability of land and funds.

This report carries the solution of the recreation problem through the inventory, guide plan and priority definition stage. There is still need for immediate initiation of preliminary surveys, site planning and detailed cost estimates.

To attempt to pay for the program, estimated to cost about \$100 million, out of current income would result in unreasonable demands upon the State's finances. Spreading the cost throughout a thirty-year period will ease the burden.

Other phases of the inventory and long-range plan authorized by chapter 471 of the Acts of 1955 still remain to be accomplished to complete the whole program of natural resources development, of which recreation is only one of the component parts. Without the final determination of all of the components the whole cannot function properly.

Recommendations.

It is recommended —

That a long-range comprehensive, well co-ordinated twenty-year program of acquisition and development of recreation areas be instituted at once.

That the major part of the program be accomplished during the first five years.

That existing areas be developed to their fullest efficient capacities.

That, based upon priorities suggested, the necessary lands be acquired.

That the right of the Department of Natural Resources to take property by eminent domain for park purposes be defined.

That, in so far as practicable, all areas acquired and/or developed shall be preserved in their natural state.

That the desirability of protective zoning, local or regional, as related to recreational areas be considered.

That the cost of the program, estimated to be about \$100 million, be met by the sale of long-term bonds of the Commonwealth.

That, if possible, the facilities developed be self-supporting.

That the responsibilities of other agencies, county, municipal and quasi-public, be considered with a view toward co-operative action in the recreation field.

That particular attention be directed toward the preparation of preliminary surveys, site plans and cost estimates of the recommended areas.

That the inventory and long-range plan of natural resources development authorized by chapter 471 of the Acts of 1955 be continued, and that the time for filing the final report thereunder be extended to the first Wednesday in December, 1958.

That the sum of \$250,000 be appropriated to carry out the provisions of chapter 471.

SUMMARY.

Public Outdoor Recreation Facilities are Inadequate in Massachusetts.

Massachusetts is greatly in need of an aggressive, well-planned well co-ordinated program to bring public outdoor recreation facilities into balance with the present and future demand.

Analysis of the factors affecting future prospects discloses no evidence that rising demand will level off in the foreseeable future. The impact of the prospective increase of population, together with the other influencing factors, points to the conclusion that total demand will double during the next twenty years. If Massachusetts had adequate accommodations now, there would be need for a program under which they would be doubled by 1977. They are not adequate at present. *To be adequate in 1977, the capacity of the accommodations for public outdoor recreation in the parks, forests and reservations will have to be four times the present capacity in addition to a substantial increase in public ocean beaches.*

This is a matter of grave social and economic importance to the Commonwealth. Time is short. Exploitation of remaining suitable sites for private use is proceeding at an alarming rate. Frontage on water, fresh and salt, is the most desirable feature of areas serving recreational needs. Areas with good water frontages are already critically scarce. Only slightly less scarce are areas which possess any recreation potential whatever. A perceptible shortage of opportunities for public outdoor recreation will tend to increase dissatisfaction with Massachusetts as a place to live and work. It will also have adverse effects on the Commonwealth's extremely lucrative vacation travel business — profitable now and potentially much more so.

The social and economic circumstances surrounding life in the United States have changed greatly during the last fifty years. This change is still going on. Despite a rapid increase in population, standards of living have skyrocketed. Urban population has, since 1880, increased by more than 500 per cent. Rural population has grown only about 70 per cent. There is only about one eighth of an acre per resident in the urbanized areas. Nearly half of the people in the Nation live on less than one half of one per cent of the land.

This severely crowded half of the population needs and demands opportunity for temporary escape. Automobiles and modern highway systems make escape possible. At every opportunity, people head for the open spaces — the mountains, the lakes, the woods and the seashore.

People also have more money to spend on outdoor recreation than they used to have. Despite taxes and inflation, paying for the necessities takes less out of their disposable incomes than it ever has before. Whereas consumer prices have just about doubled since 1939, per capita disposable personal income has more than trebled. The man who earned \$40 a week in 1939 earns \$125 a week now — *after taxes*. If the bare essentials cost him \$35 a week in 1939, they cost him a little less than \$70 a week now. Much more money goes into amenities today than was the case twenty years ago. Public outdoor recreation is one of those amenities.

The work week has shortened. Workers arrive on the job later and leave earlier than they did. They have longer vacations and paid vacations are rapidly becoming standard. People are living longer and enjoying better health in their later years.

The ease and speed of travel have brought a condition under which the unit of measure of travel is time — not distance. The number of automobiles in the Nation is 100 times as great as it was in 1910. Highway systems have correspondingly increased carrying capacities.

The sharp rise in the number of visitors to national and state parks illustrates how the demand for public outdoor recreation facilities has grown. The number of visitors to the national parks was 3.25 million in 1930. In 1955, it was 50 million. Between 1941 and 1955, the annual attendance at the state parks increased from 97 million to 183 million. Recreation centers in the Massachusetts state parks and forests have felt a similarly heightening pressure.

Recreation is Indispensable.

People will not, by and large, continue to stay in environments which offer unduly limited opportunities for recreation — the pleasurable and constructive use of leisure time. They are no longer obliged to expend all their energies in an effort merely to stay alive. The economic strain has diminished greatly in the last one hundred years — in the last fifty years. The demand for recreational facilities, particularly for outdoor recreation, has outgrown the capacity and abilities of private property and enterprise. The twentieth century has witnessed the evolution of a strong demand for opportunities for outdoor recreation on lands owned and administered by the towns, the cities, the counties, the States and the Nation. The phenomenal nationwide growth of state park systems is an answer to this demand. Massachusetts is only one of the States which have built up extensive and highly developed state park systems during the past twenty to fifty years.

Because of its many miles of ocean frontage, the Commonwealth has a special opportunity to provide superior recreational facilities on ocean beaches. There is a natural affinity between recreation and beaches. People want to get near and into the water. This combination of circumstances places the Commonwealth's public beach program at an extremely high level of importance.

What Massachusetts has.

There are 21 state parks, 8 state reservations and 105 state forests with an aggregate area of nearly 190,000 acres in Massachusetts.

In addition to the beaches operated by the Metropolitan District Commission, there are five state beaches. Three are now in operation. Work on the other two is progressing rapidly. Two of the state parks have salt-water frontage and are being prepared for public beach use.

Of major importance to the Commonwealth is its attraction to sightseers. They come primarily to see the historic sites and places which have acquired widespread fame for other reasons. The interest of these people, however, is not confined exclusively to sight-seeing. They also want to swim, fish, picnic, sail or otherwise enjoy themselves while they are vacationing in the State. Massachusetts has an opportunity to capitalize heavily on this combination of reasons why people like to come here. They are not likely to make repeat visits merely to see Paul Revere's house or the Minute Man a second time. They will be more apt to come again if they had a good time at the beach, or a lake shore, or in some other pleasing recreational environment.

The Need for More and Better Accommodations for Recreationists.

It is clearly apparent that Massachusetts needs an energetic program directed toward provision of ample and adequate facilities for public outdoor recreation — ample in number and size and adequate in character. The state government should immediately authorize the Department of Natural Resources to proceed with a long-range program of expansion and improvement of the outdoor recreational facilities available to the public.

The details of this program appear elsewhere in this report. In essence, it will involve the expansion and improvement of recreation areas on the parks, forests and beaches already in possession of the Commonwealth and under the administration of the responsible state agencies. It will also consist of the acquisition and subsequent development of a considerable number of additional areas which are endowed with natural or potential characteristics complying with essential standards.

The Acute Need for Immediate Action.

Certain areas have been designated as "critical." This does not mean that the situation with respect to other areas is not critical. The speed with which still unspoiled and undeveloped areas, ca-

pable of meeting the public need, are being developed and spoiled by subdividers and other private developers, is truly alarming. The term "critical" is used in relative sense. Some areas are under such threat of becoming permanently unavailable as to make their situation highly critical. Where this condition exists, we recommend acquisition with the least possible delay — within not more than a few weeks or, at the most, months.

There is also an acute need for further expansion and improvement, with the minimum of delay, of a number of outdoor recreation centers already established in the state parks and forests and on the beaches. Intolerable overcrowding is chronic on some of these areas. More facilities for camping, picnicking, swimming, boating, fishing, hunting and other recreational activity are needed. The work is progressing, but not rapidly enough or on a sufficiently large scale.

The Necessity for a Plan of Action.

The recommended action program should be based on and should follow a carefully prepared and properly co-ordinated plan which should embrace both long-range and immediate action. There is acute need for the preparation and adoption of such a plan in a manner that will insure a sufficiency of outdoor recreation facilities, and that will also best advance the vacation travel industry in Massachusetts. There is also need for an expanded program of public information and education. Thus, the citizens of Massachusetts may derive the fullest possible enjoyment and benefit from all available forms of outdoor recreational activity. Of major importance is a program to publicize the State's attraction to sight-seers and vacationists from outside the State. The potential increase in expenditures by such visitors is of major economic importance to the Massachusetts community.

Scheduling.

The deficiency of public accommodations for outdoor recreationists is substantial. Ideally, it should be eliminated at once. This is not practical. Alternatively, adoption of a program whereby the deficiency would be wiped out twenty years from now could be considered. Such a program is unrealistic for two reasons. Though diminishing, the deficiency would persist throughout the period.

More importantly, such a leisurely approach to the acquisition of needed areas would result in their becoming unavailable.

The suggested compromise is a program under which the facilities catch up with the demand in five years — between the beginning of 1958 and the end of 1962. To achieve this objective, it is possible to conceive a program of development which accomplishes one fifth of the needed work each year. Acquisition of needed additional lands is, however, another story. This part of the program should be completed as rapidly as possible without regard to the purely present need. Great harm to the long-range program can easily result from failure to make control of these lands definitely secure.

The Objective.

The ultimate objective of the proposed program is a condition under which the accommodations for public outdoor recreation, having been brought into balance with the demand by 1962, will still be adequate to the demand in 1977 — twenty years from now. The accommodations will be deemed adequate if they meet the statewide need, and also if they are distributed geographically in accordance with the distribution of the population, with particular reference to the heavily populated urbanized areas.

Statewide field surveys clearly demonstrate the feasibility of the proposal that, by 1977, the capacity of the accommodations in the state park (and state forest) system be four times their present capacity. The facilities in parks and forests now owned can be expanded. Other properties, complying with essential standards, can be acquired if action is not too long delayed.

The ocean beaches have for many years provided recreational opportunities for the people who live in Massachusetts and who come to the State from elsewhere. Because of their proximity to the most heavily populated portion of the State, the demand on them has been, and continues to be, heavy. As a result they have been developed to a point at which the aggregate capacity of all the state-operated beaches is eight times that of the parks, forests and reservations. Beaches administered by the Metropolitan District Commission account for about 80 per cent of this capacity. Prospective future demand reflects the need to increase the capacity of the ocean beaches, other than those administered by the Metro-

politan District Commission, by approximately 75 per cent during the next twenty years.

It is possible now to accommodate about 35,000 people comfortably at one time in the state parks, forests and reservations outside the jurisdiction of the Metropolitan District Commission. It is proposed that this capacity be increased to between 140,000 and 150,000 by 1977.

The ocean beaches, other than those administered by the Metropolitan District Commission, are able to accommodate about 85,000 people at the present time. This study shows that, by 1977, the capacity of these beaches should also be increased to provide accommodations for between 140,000 and 150,000 people.

Financing.

The suggested program does not propose the provision of unneeded luxuries for the people. Neither does it propose expenditures which merely exhaust the financial resources of the State. What it proposes is the wise use of capital for the creation of new wealth — wealth which will be reflected in an improved economic status for the Commonwealth and its people and which will be returned to the Commonwealth many-fold in the future.

The investment of capital, in the proper ratio, to increase the future income from vacation travel is clearly desirable. Other States are working hard to take this business away. Not so clear, but of equal importance, is the wisdom of investment to improve living conditions in Massachusetts. To the extent that this is done, a larger number of productive workers will resist the lure of other places where they might find better living and outdoor recreational facilities. Moreover, fewer citizens of Massachusetts will be inclined to export funds as vacation travelers in other States. A properly conceived and executed program will minimize this tendency.

Sufficient funds should be provided to make the fulfillment of the suggested program possible. Because of the economic importance of the whole complex of the natural resources of Massachusetts, continuation of the study authorized by chapter 471 of the Acts of 1955 is urgent. The act calls for a comprehensive master plan for the development and management of the State's natural resources. The preparation of such a plan will require several years

of still uncompleted work. Adequate prosecution of this study will require the earmarking and periodic disbursement of a total of \$250,000.

INTRODUCTION.

For many years the American people, if they thought about it at all, regarded the abundance of our natural resources as inexhaustible. There appeared to be no need for conservation or even for prudence in their use. The result was wasteful and even reckless exploitation of these assets which are so vital to our welfare.

The people of Massachusetts have been no exception. Directly or indirectly, the livelihood of the great majority is based on a manufacturing economy which places little dependence on the natural resources of the State. Their thinking has naturally been directed mainly toward the need to keep the manufacturing aspect of the Commonwealth's economy in a state of healthy growth.

The last fifty years have shown unmistakable evidence, however, of a widespread and increasing awareness that the Nation can no longer afford to neglect its natural resources. The citizens of Massachusetts have displayed a similar awareness and legislation enacted by the General Court in recent years is evidence of realization that past policies and action programs have been inadequate to the need.

Chapter 631 of the Acts of 1953 established the Department of Natural Resources as the state agency authorized to direct the Commonwealth's activities in the field of natural resources. Chapter 471 of the Acts of 1955 directed this Department to take inventory of the natural resources in the possession or under the control of any board, office or institution of the Commonwealth and to prepare a long-range plan for their appropriate use and development. Chapter 591 of the Acts of 1956 authorized continuation of this project for another year through 1957.

The Natural Resources.

What are the natural resources of Massachusetts and how important are they? Chapter 631 defines them as: "Ocean, shellfish and inland fisheries; wild birds, including song and insectivorous birds; wild mammals and game; sea and fresh water fish of every description; forests and all uncultivated flora, together with public shade

and ornamental trees and uncultivated flora, together with public shade and ornamental trees and shrubs; lakes, ponds and streams, coastal, underground and surface waters; minerals and natural deposits." Soil is not specifically mentioned but can be assumed as included among the natural deposits.

Land.

For practical purposes of inventory and planning, the land itself is a vital natural resource. Land is living space, the space occupied by our cities and towns, our manufacturing establishments and other sources of employment, our highways and other means of transportation, our farms and forests, our beaches and our world-famous historic sites. The more than five million acres of land in Massachusetts support a scenic backdrop equal, in its inherent character, to any in the Nation.

When, in 1840, less than 750,000 people lived in Massachusetts there were seven acres of land per person. There is now one acre per person. Moreover, casual attitudes toward the land have created a condition under which nearly half the area of the State makes little or no contribution to its economy or its general welfare. Effective land-use planning is essential if the Commonwealth is to escape chaotic and damaging misuse of the land even in the near future. Massachusetts can no longer afford indiscriminate and wasteful use of its land resource.

Water.

The establishment, by chapter 620 of the Acts of 1956, of a Massachusetts Division of Water Resources demonstrates recognition of surface, coastal and underground water as one of the State's vital natural resources. Recent developments in Washington disclose a growing national awareness that the problems of the water resource embrace much more than irrigation and flood control. Current federal reports point out inconsistencies in relation to water resources in legislation and in the policies of various federal agencies. Much progress has been made toward a co-ordinated and co-operative approach to solution of national water problems.

It may be true, as is popularly believed, that Massachusetts has ample water for present and future needs, but, because the Commonwealth must be *sure* of an adequate supply, it is imperative that co-ordinated analysis and planning be undertaken promptly. The

Division of Water Resources, a separate entity within the Department of Natural Resources, will be responsible for the implementation of such a program.

The water supply problem embraces such contributory aspects as flood control, watershed protection, water storage, rivers and harbors, wetlands, water power, pollution control and the administration of Great Ponds. There is need for continued study to complete the inventory and plan for conservation and development of the State's water resources.

Forests.

To understand the importance of the forests as a natural resource, one must look at New England as a whole. Its forests contribute heavily to the economic and social welfare of the region. They add to the pleasing aspect of the landscape, provide a favorable habitat for wildlife, have a purifying effect on the water supply, retard soil erosion and narrow the range between maximum and minimum flows in our rivers and streams.

Forest-based industries stand third in New England and fourth in Massachusetts among the major manufacturing groups in terms of numbers employed, total pay roll and value of products shipped. Pulp and paper manufacture leads in importance. The value of paper and allied products, shipped annually by New England mills, is more than one billion dollars; lumber and wood furniture account for most of another \$500 million value of shipments from forest industries.

Paper and paper products manufacture is also the most important wood-using industry in Massachusetts. Its mills consume 350,000 tons of new wood pulp per year, practically all of which comes from sources outside the State. This is not because the forests of Massachusetts are not inherently capable of producing large quantities of pulpwood — it is because past mistreatment has brought them to low levels of productivity. Excessive and unwise cutting, fire, insects and tree diseases have caused severe depletion of the resource. Until good, modern forestry methods are more generally applied, depletion of the forest resource will continue. Massachusetts needs a sound forestry program to reverse this trend. The state program should envisage a time when the forests will bring hundreds of millions of dollars of additional income to the people.

Good management of the forest resource will bring other and even greater economic and social benefits and values. It will reduce the flood hazard. It will increase and improve the supply of water for domestic and industrial use. It will conserve the soil. It will improve the wildlife habitat. It will preserve the state's scenic attractions to the residents and to visiting vacationists.

The area of forest land in Massachusetts has increased steadily for many years and continues to increase as agricultural use of the land declines. Present evidence indicates that more than half of the land area of the state will be available for forestry for as many years as it is possible to foresee. The future prospects for forestry present Massachusetts with opportunities which it must grasp. The need to formulate a realistic forestry program as a phase of this general natural resources planning project, is inescapable.

Beaches.

Ocean and inland beaches present invaluable recreational opportunities to the people of Massachusetts and have far-reaching effects on the social health and welfare of the community. The popular appeal of ocean beaches has been so great that only a small portion of their total length remains available for unrestricted public use. Acquisition for private and otherwise restrictive development are proceeding rapidly and impose still further limitations on the use of these beaches by the people as a whole. Unless something is done promptly to protect the public interest through acquisition by the State of as yet undeveloped ocean beaches, the opportunity will be permanently lost.

The situation with respect to inland beaches is, on the whole, even more critical than in the case of the ocean beaches. Time is shortening rapidly and there is great need for early action — otherwise the State may well face an insoluble problem in its responsibility to insure that facilities will be adequate to the public's needs. Subsequent text in this report will deal with the ocean and inland beach problem in detail.

Minerals.

Massachusetts is one of the poorer states as far as metallic mineral deposits are concerned, although, because of its glacial history, stone, sand, gravel and certain useful clays are relatively abundant.

For scientific determination of the relation of the State's mineral resources to new industrial processes, geologic research should be expanded and a prospectus of the types and locations of mineral elements likely to come into commercial use should be drawn up. The Department of Natural Resources should administer this program with other agencies concerned on a co-operative basis.

Soil is the basic resource of the more than four million acres of agricultural and forest land in the State. Soil conservation is an indispensable feature of any program dealing with the natural resources of the Nation, a State or a minor civil division. It calls for a continuing program of investigation and planning at the state level in Massachusetts.

Fish and Wildlife.

The marine fisheries resource accounts for, in Massachusetts, an annual catch of more than 500 million pounds of seafood valued, at dockside, at \$40 million. This is 70 per cent of all seafood landed at New England ports. Involving the use of 3,000 or more boats and providing employment for 25,000 persons, the Massachusetts fisheries industry has an annual estimated final value of \$160 million.

Both inland and ocean waters provide increasingly popular sports fishing. It is estimated that salt water fishing alone attracts 100,000 anglers who spend \$18 million annually.

There is growing interest in hunting and fishing in Massachusetts. Sportsmen spend nearly \$75 million a year in the State in addition to payment for hunting and fishing licenses. Wisely co-ordinated land use management will allot wildlife areas in proportion to the mounting demand for good hunting and fishing. Much more study is needed to provide a basis for incorporation of a fish and wildlife program into an overall plan for the prudent management of the State's natural resources.

Interrelationship.

The natural resources discussed above are an integral part of the environment of the nearly five million people of the Commonwealth. Moreover, the various natural resources are in themselves closely interrelated. It is possible to inventory and appraise them and to devise a sound plan for their co-ordinated development only by dealing with them as a single functioning entity. Modern natural

resource management is based on realization that appraising the value of these resources, in terms of any single use or benefit, is impossible. The multiplicity of purposes of the forests, for example, has already been mentioned. The multiple use aspect of the water resource is immediately apparent. Water is an indispensable household commodity. Without process water, many manufacturing industries could not operate. Water is power. It is also the habitat of fish and other aquatic life which meet the food and recreational needs of the people.

Study of the natural resources of the Commonwealth must consider their relationship to New England as a whole. It must also consider their relationship to such man-made resources as transportation systems and historic relics. Massachusetts is particularly rich in the latter. Massachusetts is also rich in scenic values. In a negative sense, scenic values are man-made because of the ease with which they can be damaged. Advertising signs, uncontrolled commercial development, rural slums, dumps and slashed or burned forest lands are examples of human activity adverse to scenic effects. In contrast, it is possible to enhance resource values by installing improved outdoor recreation facilities in state parks, state forests and on other public lands. Planning for a co-ordinated program of public recreation on state lands is an indispensable element of any approach to comprehensive development of the natural resources of the Commonwealth.

The Related Resources.

Transportation.

The railroads, the airlines and particularly the highway system bear an intimate relationship with the natural resources of the Commonwealth by making them more readily accessible. In planning for long-range natural resource management, full consideration of transportation facilities is of paramount importance.

New, high-speed highways bring natural areas which have hitherto been relatively inaccessible within easy reach of increasing numbers of people. Responsibility for co-ordinated protection of these areas against misuse, and provision for transportation and other facilities to insure maximum enjoyment by the public, falls logically on the state government.

Conversely, the majority of tourists, whether from within or without the State, will miss the pleasure of some of the State's most attractive features if they travel only on the major or secondary highways. As a result of recognition of this truth, recent state legislation has authorized the establishment of a system of tourists' routes to be carefully designed to meet the special needs of the vacationists, recreationists and sightseers. These routes will provide for leisurely travel by people more interested in the wayside attractions than in arriving at their destinations in a hurry.

Historic Sites.

Time has endowed many towns, buildings, monuments and other historic memorabilia in Massachusetts with values comparable with those of the true natural resources. The attraction they exert runs so closely parallel that attention to them is inescapable in any planning program such as that contemplated here.

Outdoor Recreation.

There is nationwide realization of the public's need for outdoor recreation. For many years, private properties met this need fully on a paid-for or free-use basis. However, this condition no longer exists.

As the population has increased and people have more leisure, longer vacations and more money to spend on recreation, the demand for publicly owned recreation facilities has surged upward. Installation and maintenance of permanent improvements to increase recreational opportunities in national and state parks, forests and other public properties have become common practices.

Massachusetts has built up a state park and state forest system, but it has done far less to develop public recreation facilities on these lands than have, as a whole, the other States in the Nation. The Commonwealth's public facilities for outdoor recreation are clearly inadequate for present needs. Prospective future needs make a stepped-up program of acquisition of additional lands and further development of public recreational facilities imperative.

State Responsibilities.

Thus, Massachusetts faces an immediate crisis in its responsibility to provide its citizens and its vacationing visitors with adequate

opportunities for public outdoor recreation. In realization of this now obvious fact the first definitive phase of the State's comprehensive study of its natural resources is devoted to public recreation. This report presents the results of that study in detail.

The Preliminary Report.

Compliance with the provisions of chapter 471 of the Acts of 1955 took the form, initially, of the preparation of a preliminary report which was completed in June, 1956. That report includes an inventory of the natural and related resources of the Commonwealth and a general appraisal of their social and economic importance. The above discussion of these resources is based largely on the results of that appraisal.

It became clearly apparent, even in the early stages of preparation of the preliminary report, that several years of work would be required for the preparation of a sufficiently thorough and comprehensive master plan for long-range management of all of the natural resources of the Commonwealth. The many complexities of the component details must be clarified. Specific needs must be determined and the basis for a detailed action program provided. Planning for the development of each separate resource must be done with careful attention to the needs of, and effects on, the other resources. The result must be a completely co-ordinated program.

To accomplish these purposes, the preliminary report recommends continuation and expansion of the natural resources study. It envisages the need, during the period of years covered by the study, of appropriations for the purpose totalling at least \$300,000.

Selection of First Definitive Phase.

Chapter 591 of the Acts of 1956 authorized continuation of the study through the calendar year 1957. Other legislation enacted by the General Court made an appropriation of \$50,000 available for this purpose.

The Department of Natural Resources had, on the basis of its experience, already come to the conclusion that, when legislative authorization for continuation of the study was granted, the first definitive phase should concern itself with public outdoor recreation and vacation travel. The results of the preliminary study confirmed the wisdom of this conclusion.

The recreation and vacation phases of natural resource management are particularly vulnerable to irrevocable loss unless vigorous steps are taken to retrieve lost ground which has resulted from the rapidly changing economic and social structure of the State. Subsequent sections of this report will present the detailed justification of this observation together with suggestions for corrective action.

Interim Report.

One conspicuous aspect of the changed and changing economic and social scene as it affects public recreation is the rapidity with which desirable beach, mountain and lakeside areas are being denied to public use by acquisition and development for private occupancy and commercial purposes. If opportunity for use by the public is to be kept in balance with the need shown by the preliminary report, equally rapid acquisition by the State is urgent.

Field work done as a part of this study disclosed a number of specific areas suitable for recreation and vacation use, the immediate status of which was highly critical. These properties were either on the market or private developers had designs on them. There was real danger that they might no longer be available for acquisition by the State at the time of completion of this report. To cope with this danger, to the extent possible, a special interim report was submitted to the Commissioner of Natural Resources on January 24, 1957.

This interim report gave information on 15 areas in the Berkshire Hills and Cape Cod regions which were recommended as particularly suitable for incorporation into the system of state parks and forests. It also recommended immediate attention to these areas to remove the possibility, to the maximum practical extent, that early private development or purchase by others might interfere with their acquisition by the State.

The interim report also supplied information on seven additional areas which would comprise a part of the long-range program of acquisition and development. Although acquisition of these areas is not immediately urgent, they were mentioned because of their influence on the development of the more urgently needed areas and on the consolidation and general improvement of the whole state park-state forest system.

The interim report includes comment on the existing legal status of land acquisition by the Department of Natural Resources. It makes suggestions for amendments which would remove obstacles which appear, in view of the existing emergency, to impose excessive restrictions on acquisition by the Department. Appendix E includes a copy of this interim report.

HISTORICAL.

Origin and Early Development of Outdoor Recreation.

Generally frowned upon in early colonial days as a waste of time, outdoor recreation as we know it today was largely confined to hunting and fishing. These activities were favored, however, more as means of providing food than as pleasurable pursuits.

In more recent years there has been a progressive easing of economic pressure upon increasing numbers of people. Changing conditions have developed a growing understanding that recreation should not only be condoned, but that it is indispensable to maintenance of the essential mental and physical health of our people. Recreation has been defined as the pleasurable and constructive use of leisure time and a necessary relaxation and release from strain.

Use of Private Properties.

Progressively and in response to popular demands, privately owned summer resort hotels and other recreational enterprises in the mountains and on the lakes and seashore catered to vacationists. The railroads, the local steamship lines, and later the trolley lines, provided resorts designed for popular one-day outings, thus increasing passenger revenues during the summer months.

Hunters, fishermen, picnickers, mountain climbers, hikers and campers roamed the countryside without, except in relatively few cases, having to care about whose land they were on. The use of private land for these purposes, with or without the consent of the owner and quite generally without any financial consideration, was a common, taken for granted privilege.

Private enterprise still provides a large aggregate of the facilities that cater to people who seek outdoor recreation for vacations and one-day outings. Numerous resort hotels still do business. There are guest houses, motels and other privately operated accommoda-

tions. It is still possible for people to enter upon many private properties to hunt, fish, picnic, hike, ski or otherwise participate in outdoor activities without fear of incurring the owner's active disfavor.

Private Properties No Longer Suffice.

As the population, money for the purpose, leisure time and the use of private passenger automobiles have increased, a revolutionary change has taken place in the general pattern of outdoor recreation. Hunting lands, fishing waters, inland swimming beaches and other privately owned properties have, to a significant extent, been closed to all except the owners, their friends and members of clubs or associations. In many cases, cities and towns, by one means or another, restrict the use of ocean and inland beaches to residents. There is a growing tendency for towns to prohibit hunting to all except landowners on their own properties. The common practice of subdividing land adjacent to ocean and inland beaches results in loss of their use by the public. "No trespassing" signs and wire fences have become increasingly common features of roadside picnic spots. The attractiveness of those areas still open is usually ruined by the litter left by previous picnickers.

Origin and Growth of State Park Systems.

Fortunately, this changing pattern has neither gone wholly unrecognized nor been entirely neglected. The idea of public ownership for the preservation of scenic and historic treasures or other natural phenomena, or merely to provide the public with open space, originated many years ago. Some public properties, which have great potential recreation values, such as the public rights to the "Great Ponds" and the Province Lands on Cape Cod, date from the earliest history of the Massachusetts Bay Colony. Boston Common, perhaps the earliest example of action by a municipality was definitely made a park in 1646. It continued, however, to serve as a community cow pasture until 1830. The original plans of many other cities included specific provision for public parks.

The earliest example of the reservation of a large state park for recreation was in the Yosemite Valley of California which was given to the State, together with the Mariposa Grove, by act of Congress in 1865. California returned this area to the federal government

for incorporation into the present Yosemite National Park forty years later.

Although the last half of the 19th Century witnessed the establishment of numerous state parks in various parts of the Nation, chiefly, though not entirely on sites possessing historic significance, the extensive development of state park systems primarily for public recreation purposes did not get under way actively until after 1900. Progress in this direction was given strong impetus mainly by two influencing factors, — the development of the program of conservation of natural resources and the invention and rapid spread of use of the automobile. This means of personal transportation has made recreation travel so convenient that it has multiplied demands for more outdoor facilities and other recreational attractions. The demand for places in which to picnic and camp has particularly increased. Highway and park developments went together, and, in the majority of States, this association is recognized as an important feature in the extension of both.

There was early recognition, by national, state and local supporters of outdoor recreation, that while large numbers of people have the time and the means to make trips of several weeks' duration to the national parks or forests, millions more require opportunities near at hand for week-end or holiday use. They seek refreshment of body and spirit in woods and mountains and on the lakes and streams within a few hours of their homes. Farsighted planners, both public officials and private citizens, saw that state parks and forests, intermediate between purely local and national preserves, were urgently needed for the health, welfare and happiness of the public. Their influence in state governments and, in many cases, their generous financial support have speeded developments to a point where state parks and forests now afford one of the most significant advances in our history. These resources are achieving our national objective of giving every one an opportunity for "the pursuit of happiness."

In 1921, when the National Conference on State Parks was organized, there were state parks in only 19 States, and no well-developed systems. By 1946, only twenty-five years later, there were 1,198 state parks totalling 4,600,000 acres in 47 States. During the next four years the number of parks increased 44 per cent to 1,725, although the acreage increased only to 4,660,000. Between

1950 and 1954 the number of areas jumped another 18 per cent to 2,030, and the total acreage rose 9 per cent to 5,100,000 acres. Oregon had the largest number of parks, with 156, covering 55,000 acres, a little more than 1 per cent of the total national area. California was second in number of parks, with 143, and also second in aggregate area, with 560,000 acres — more than 10 per cent of the total national area. New York was third in number of parks, with 127, but first in area, with more than 2,600,000 acres — more than half of the total area of all the state parks in the Nation.

Origin and Growth of the State Park System in Massachusetts.

While the reservation of the "Great Ponds" and the Province Lands for public use dates from the earliest days of the Massachusetts Bay Colony, the first agency established to acquire lands for the definite purpose of conservation of scenery and for outdoor recreation was the Trustees of Public Reservations, now known as Trustees of Reservations, a private, non-profit organization authorized by the General Court in 1891. The Metropolitan Park Commission was established a year later.

The Mount Greylock Reservation, created in 1898, was the first area to be set aside for recreational purposes. A special commission separate from the Trustees of Reservations was, however, established to administer it. By 1928 there were seven such special commissions, each administering a single reservation. The aggregate area of these reservations was nearly 13,000 acres. In 1922, the number of commission-administered reservations was increased to 8 by the creation of the Walden Pond Reservation of 150 acres, with its own separate commission.

By 1926 the Trustees of Reservations had acquired seven properties totalling 546 acres. It now holds 28 areas, with an aggregate of more than 4,200 acres. These are widely distributed over the State.

The Appalachian Mountain Club held in trust for the public, during a period in the early nineteen hundreds, three small areas totalling a little less than 70 acres. These areas were transferred to the Department of Conservation in 1934.

Although they serve similar purposes, the reservations mentioned above do not have the official status of state parks. There were, in 1936, two officially designated state parks in Massachusetts, with

an aggregate area of less than 2,400 acres. The Commonwealth now owns 21 state parks covering a little more than 8,100 acres. These parks, administered by the Department of Natural Resources, provide the people, particularly though not solely those who live nearby, with opportunities for outdoor recreation and the enjoyment of special scenic values or other unusual attractions. They are also popular attractions for people coming from other regions and have favorable effects on the State's income from vacation travel business.

Massachusetts differs from most of the other States in the extent to which it has given encouragement to the use of the state forests for recreational purposes. Comparison of the state park system of Massachusetts with those of other States does not, in itself, present a true picture of the relative status of Massachusetts with respect to organized public outdoor recreation. Subsequent sections of this report present detailed information on the development of the state forests for recreational purposes.

Ocean Beaches.

During the past thirty years or more, attention has been called repeatedly to the rapidly diminishing shore line of Massachusetts. Diminishing not physically in length and breadth, but diminishing in its ability to provide the people with adequate, publicly owned, publicly used ocean beaches. Every official agency, commission and individual studying the problem during the past quarter-century or more has reaffirmed the warning that a comprehensive, well-planned and co-ordinated program of ocean beach acquisition and development must be instituted before private exploitation progresses to a point where such action will be virtually impossible. Public demand for access to salt water is bound to skyrocket with the opening of the Massachusetts Turnpike and the completion of other projected superhighways, including the connecting spur from the New York Thruway. Our coastline will then lie within a day's drive of 50 million people.

As far back as 1924, a joint special commission called attention to the need for ocean beach planning and acquisition. It expressed the opinion, however, that the State should not acquire or develop beach reservations unless the towns failed to do so. As an incentive to town participation, legislation was passed in 1926 (section 23A,

B and C of chapter 45, General Laws) providing for county assistance to coastal towns in the development of beach projects. The failure of the towns to take advantage of the statute has brought about repeated proposals throughout the years in favor of state beaches. One such, in 1929, proposed the development as state reservations of Duxbury and Salisbury beaches. Two years later Salisbury was acquired by the Department of Conservation.

In 1936, the State Planning Board, recognizing the seriousness of the situation, reported that "State-owned beach reservations are necessary and should be acquired as rapidly as possible to escape the steadily rising land costs." It recommended a long-range program of acquisition and development of nine sites, including the ones which now, at long last, are being developed. The same board acting jointly with the National Park Service repeated the same recommendations in a "Park, Parkway and Recreation Area" study in 1941.

The fears of the earlier students of the problem have been largely confirmed. Sites that could have been obtained at remarkably low prices fifteen or twenty years ago have been built up to prohibitive values, making acquisition impracticable. In fact, private development has already progressed to such a degree that the only shore areas now available are either too difficult of access or undesirable for summer resident use. Massachusetts is not alone in this respect. The National Park Service in its 1955 report, "Our Vanishing Shoreline," covering the entire Atlantic and Gulf coast, refers to its 1935 report which recommended the acquisition of 12 major strips. In 1955, only one still remained available. Shore areas, which could have been bought in 1935 for \$9,000 per mile would have cost \$110,000 per mile in 1955.

The Department of the Interior concluded, after this two-year study, that already 83 per cent of the Atlantic and Gulf coast was developed, had been acquired for development, or was in the process of being developed by private interests. The report also stresses the importance of the outer beach of Cape Cod as a possibility for a national seashore, and discusses several of the Massachusetts sites which have been considered in recent years as good state beach possibilities. These are virtually the same as those proposed in the recent report on "Master Plan of Ocean Beaches" which resulted from a study by the Massachusetts Department of Commerce.

INVENTORY.

The laws of the Commonwealth clearly recognize the need and propriety of public outdoor recreation. This need is generally recognized among other States, and the installation and maintenance of permanent improvements for the enhancement of recreational opportunities is common practice. Such improvements include parking spaces, recreation buildings, cabins, shelters, restaurants, tent and trailer sites, picnic sites with fireplaces and tables, lake-side docks, roads, bridle, ski and hiking trails, comfort stations, bathhouses and other features which add to the convenience and enjoyment of the visiting public. In some cases provisions are made for the renting of tents, cabins, boats, canoes, outboard motors, fishing tackle and other equipment commonly used in connection with outdoor recreational activities.

In attempting to present an overall picture of the present situation with respect to outdoor recreational needs, it appears logical to include consideration of facilities provided at all levels of government. Almost any land that has not been abused by improper or unwise use is suitable for some kind of recreation, and in recent years almost every agency that possesses land has, to some extent, entered the recreational field. All of these agencies contribute to the recreational resources of Massachusetts and thus must be considered.

An inventory of public outdoor recreation facilities has meaning only when it is made within its proper frame of reference. The frame of reference with which we are concerned is the social and economic status of the people of Massachusetts and the State's physical attributes — its relative desirability as a place to live and work. Among those attributes are climate, topography, scenic attractions and, in fact, all elements contributing to such desirability in comparison to other places to which people might go to live. Massachusetts citizens are fortunate in this respect. They derive greater benefit from the natural amenities than do the residents of many of the States. Regardless of the extent to which we take these amenities for granted, their importance as forces sustaining the general welfare is incalculable. They add substantially to the prospect of the future social and economic success of the Commonwealth.

Economic Factors.

What are the existing economic factors affecting the frame of reference of public outdoor recreation facilities in the Commonwealth? The population of Massachusetts is not increasing as rapidly, for obvious reasons, as that of the United States as a whole. Our State already ranks third in the Nation in terms of density of population, with about one person per acre — 600 per square mile. The ten urbanized areas within the State had a total population of 3.4 million in 1950. This is 72 per cent of the total for the State. In the urbanized areas there were slightly less than 5,000 inhabitants per square mile — about 8 per acre. By contrast there are, in the rest of the State, 3.6 acres per inhabitant.

Massachusetts people are, on the average, better off than those of the Nation as a whole. In 1954, their per capita personal income was \$1,922. For the Nation as a whole it was \$1,770. Massachusetts stood thirteenth among the States in this respect. The total valuation of all lands and buildings in the State in 1950, for property tax purposes, was \$6.3 billion, or \$1,340 per capita.

When the 1950 census was taken, there were 1.8 million employed persons in Massachusetts, 50 per cent of the number fourteen years old and over. This percentage is the same as for the whole United States.

In 1954, the sales of the 53,000 retail establishments in Massachusetts totalled \$5.5 billion, 31 per cent more than total sales of \$4.2 billion in 1948. The rise in consumer prices accounts for only about one third of this increase. The balance is in the greater volume of business done.

Vacation Travel.

There is a shortage of precise information on vacation travel in Massachusetts. The American Automobile Association estimates that 72 million people in the Nation took at least one vacation trip in 1955. The average vacation trip party includes three persons and extends over a two to three week period. Eighty-five per cent travelled by automobile a total distance of 11.5 billion miles and spent \$11.2 billion, \$156 per person.

The Crowell-Collier Publishing Company estimates that 10 per cent of the Nation's vacation travelers came to New England in 1955. From this estimate and the results of other studies, it is

possible to conclude that New England entertains between 6.5 and 7.2 million vacation travelers in an average current year. The Crowell-Collier survey indicates, however, a downward trend in the number coming to New England. They say that the percentage dropped from 14 in 1948 to 10 in 1955. New Englanders and people living in the Middle Atlantic States account for, in about equal proportions, more than 80 per cent of vacation travelers in New England.

The Curtis Publishing Company has estimated that 3.7 per cent of the Nation's vacation travelers come to Massachusetts. This is 2.7 million, nearly 40 per cent of the New England total. If each visitor spends \$156, the total expenditure for vacation travel in the State is \$421 million per year. It has been stated that entertaining and supplying vacation travelers is the Commonwealth's third most important economic activity.

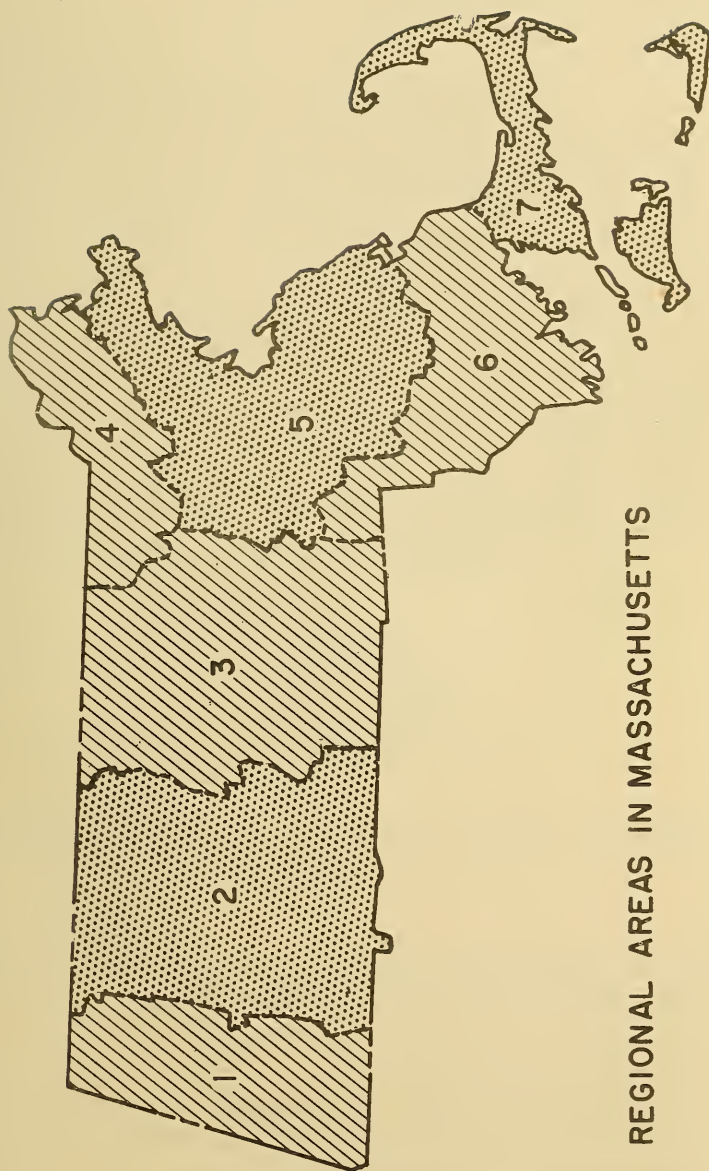
A part of this expenditure is, of course, made by people who live in Massachusetts. If the proportion of residents to outsiders is the same in Massachusetts as it is in New England, Massachusetts residents account for about \$170 million, leaving \$251 million as the amount of money imported into the State per year by the vacation travelers.

There is general agreement among the experts on vacation travel that adequate advertising and promotional activity could result in a doubling of the volume of vacation travel business in New England and Massachusetts. Others sound a note of caution, pointing out that promotion and the provision of adequate facilities go hand-in-hand. Unless the vacationists find really good places to stay without undue difficulty, promotional campaigns can have serious adverse repercussions.

Existing Recreational Areas.

There is no uniformly accepted classification of state park and related areas. Most of the states, however, use a number of classifications based upon consideration of general character, use, established custom and statutory provision. These vary from State to State, with some 60 odd classifications currently in use.

Figure 1



REGIONAL AREAS IN MASSACHUSETTS

Source : Massachusetts Department of Commerce

For the purpose of evaluation in this inventory, state park and related areas are grouped into three classifications:

1. State parks and forests (including inland beaches).
2. Salt water beaches.
3. Scenic, historical, educational and geological sites.

The basic inventory data essential to analysis of the present and future recreational needs of the State also include statistics showing the existing situation with respect to fresh water and salt water beach facilities provided by the municipalities. The increasing number of bills filed with the Massachusetts Legislature each year is evidence that more and more cities and towns are looking to the State to provide recreational facilities. It is also necessary to consider the adequacy of facilities to the needs of the vacation travelers.

The available data were largely arranged by regions as defined by the Division of Planning of the Massachusetts Department of Commerce, Fig. 1 (map). These regions, which closely approximate the suggested planning and administrative districts recommended in the Preliminary Report, are as follows:

1. Berkshire Region.
2. Connecticut Valley Region.
3. Worcester County Region.
4. Merrimack Region.
5. Massachusetts Bay and Environs.
6. Bristol-Plymouth Region.
7. Cape Cod Region.

The following sections show the nature and extent of facilities currently provided for use by the public: —

State Forests and Parks.

Massachusetts has 21 state parks, 8 state reservations and 105 state forests with a combined total area of more than 188,000 acres. A complete list of these state forests, parks and reservations appears in the Inventory of Public Lands of Conservation and Public Recreation Significance, in Appendix C. Permanent improved facilities for various forms of outdoor recreation have been installed on many of these. Fig. 2, below, shows the present existing capacity

of facilities in the state forests, parks and reservations which are currently being used for recreation.

FIG. 2. — *Capacities and Facilities in State Parks, Forests and Reservations.*¹

REGION.	CAPACITY.			NUMBER.				
	Bathing, Number of People.	Bath- house, Number of People.	Parking, Number of Cars.	Picnic Tables.	Fire- places.	Tent Sites.	Cabins.	Trailer Sites.
1. Berkshire . . .	2,450	900	910	654	440	197	7	-
2. Connecticut Valley	1,550	2,000	1,131	652	472	20	-	-
3. Worcester County .	3,750	3,250	1,750	1,113	573	146	4	12
4. Merrimack . . .	1,500	2,000	470	195	205	39	-	-
5. Massachusetts Bay and Environs.	1,700	940	520	219	147	-	-	-
6. Bristol-Plymouth .	5,500	6,000	1,786	225	170	260	17	10
7. Cape Cod and Is- lands.	300	400	750	317	313	300	-	20
Totals . . .	16,750	15,490	7,317	3,375	2,320	962	28	42

¹ Capacity is the number of people (or cars) that can be comfortably accommodated at one time.

NOTE. — Parks administered by the M. D. C. and salt water beaches not included.

Fig. 3 (chart) shows, by regions, the types of recreation available at the 50 state parks, forests and reservations which now provide recreational facilities.

To obtain the information presented in Fig. 2, questionnaires were sent out to the supervisors of the recreation areas throughout the State. It is believed that the tabulation presents a fairly accurate picture of the situation, with the exception of the facilities for boating. Although boating is permitted on many of the water bodies, very little is provided in the way of improved facilities. More than 1,500 boat permits were issued in 1956 at Ashland, Cochetuate, Hopkinton and Whitehall State Parks in spite of the limited facilities.

Ocean Beaches.

At present there are, in addition to the beaches under the Metropolitan District Commission, three state beaches in operation, one at Salisbury, one at Provincetown and a small one at Eastham, known as First Encounter Beach (where the Pilgrims encountered their first Indians after putting into Provincetown Harbor). Only at the first two are there any State-operated facilities. Salisbury,

Figure 3
EXISTING RECREATION FACILITIES

RESERVATION FOREST OR PARK	LOCATION (NEAREST TOWN)	SWIMMING	BOATING	CAMPING	PICNICKING	HUNTING	CABINS	TRAILER SITES	RESERVATION FOREST OR PARK	LOCATION (NEAREST TOWN)	SWIMMING	BOATING	CAMPING	PICNICKING	HUNTING	CABINS	TRAILER SITES
REGION 1 BERKSHIRE									LAKE QUINSIGAMOND S.P.	WORCESTER	x	x					
MT. GREYLOCK ST. RES.	ADAMS			x	x				WILLARD BROOK S.F.	ASHBY	x		x	x		x	
CLARKSBURG S.P.	CLARKSBURG	x	x	x	x				DOUGLAS S.F.	DOUGLAS	x	x		x	x		
WAHCONAH FALLS S.P.	WINDSOR			x					LEOMINSTER S.F.	LEOMINSTER		x		x	x		
BASH BISH S.P.	MT. WASHINGTON			x					MASS.FED.W.C. S.F.	PETERSHAM		x		x	x		x
BEARTOWN S.F.	LEE	x	x	x	x				OTTER RIVER S.F.	WINCHENDON	x	x	x	x			x
CAMPBELL FALLS S.F.	NEW MARLBROUGH			x	x				SPENCER S.F.	SPENCER	x		x	x			
EAST MOUNTAIN S.F.	GREAT BARRINGTON			x	x				REGION 4 MERRIMACK VALLEY								
MOHAWK TRAIL S.F.	HAWLEY	x	x	x	x	x			PLUM ISLAND S.P.	IPSWICH	x		x				
PITTSFIELD S.F.	PITTSFIELD	x	x	x					HAROLD PARKER S.F.	ANDOVER	x	x	x	x	x		
SANDISFIELD S.F.	SANDISFIELD	x		x	x				BILLERICA S.F.	BILLERICA					x		
SAVOY S.F.	ADAMS	x	x	x			x		LOWELL-DRACUT S.F.	LOWELL					x		
WINDSOR S.F.	WINDSOR	x	x	x	x				REGION 5 MASS. BAY AND ENVIRONS								
OCTOBER MT. S.F.	LEE			x					WALDEN POND ST. RES.	CONCORD	x	x					
TOLLAND S.F.	TOLLAND	x	x	x					BRADLEY W. PALMER S.P.	TOPSFIELD	x		x				
REGION 2 CONNECTICUT VALLEY									ASHLAND S.P.	ASHLAND	x	x					
MT. SUGARLOAF ST. RES.	DEERFIELD			x					COCHITUATE S.P.	FRAMINGHAM	x	x					
MT. TOM ST. RES.	HOLYOKE	x	x	x	x				MYLES STANDISH MON. RES.	S. DUXBURY					x		
JOHN C. ROBINSON S.P.	W. SPRINGFIELD	x		x					REGION 6 BRISTOL PLYMOUTH								
JOSEPH ALLEN SKINNER S.P.	S. HADLEY			x					DIGHTON ROCK S.P.	BERKLEY							
ERVING S.F.	ORANGE	x	x	x					LLOYD MEMORIAL S.P.	DARTMOUTH	x	x		x			
MOUNT GRACE S.F.	WARWICK	x	x	x	x				FREETOWN-FALL RIVER S.F.	FALL RIVER				x	x		
BRIMFIELD S.F.	BRIMFIELD	x	x	x	x				MYLES STANDISH S.F.	PLYMOUTH	x	x	x	x	x		x
CHESTER-BLANDFORD S.F.	BLANDFORD	x		x	x				REGION 7 CAPE COD & ISLANDS								
GRANVILLE S.F.	GRANVILLE	x	x	x	x				R.C. NICKERSON S.F.P.	BREWSTER	x	x	x	x			x
D.A.R. S.F.	ASHFIELD	x	x	x					PILGRIM SPRING S.P.	TRURO					x	x	
REGION 3 WORCESTER COUNTY																	
PURGATORY CHASM ST. RES.	SUTTON			x	x												
MT. WACHUSETT ST. RES.	PRINCETON	x	x		x												
HOPKINTON S.P.	HOPKINTON	x	x														
WHITE HALL S.P.	HOPKINTON	x		x													

LEGEND: S.F.= State Forest

S.F.P.= State Forest Park

S.P.= State Park

ST. RES.= State Reservation

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completed in 1955 by the Division of Beaches, has parking space for 3,700 cars, a large pavilion and bathhouse facilities. Provincetown has a bathhouse and parking for 670 cars. Two other facilities are now being constructed by the Division, one at Horseneck in the town of Westport. Three miles long, this beach will have parking space for 9,000 cars, an outdoor pool, pavilion, bathhouse and several play areas. At Scusset, in the town of Bourne, at the easterly end of the Cape Cod Canal, there is being developed a beach 3,000 feet long with a bathhouse, pavilion, bait house, fishing piers and parking for 1,500 cars.

Construction is now under way by the Department of Natural Resources at Demarest Lloyd Memorial State Park at South Dartmouth. This area will include a beach 4,000 feet long with parking for 700 cars, a pavilion type bathhouse, small boat landing and picnic areas. At Truro, the Department has started construction on the newly acquired Pilgrim Spring State Park.

Crane's Beach in Ipswich, although operated by the Trustees of Reservations, is open to the public and has been considered in this inventory. With four and one half miles of beach, picnic facilities and hiking and nature trails, this reservation can accommodate about 10,000 persons.

What, then, is the capacity of our present state beach system? The above-mentioned, including those under construction, have a capacity of 85,000 persons. The M. D. C. beaches are assumed to have a present-day capacity of 300,000 — a total of 385,000.

Cultural Resources.

Recreation has been defined in part as the pleasurable and constructive use of leisure time. Going sightseeing is a universal method of utilizing spare time. The sights that people go to see cover a wide variety from shipyards and steel mills to glass flowers and formal gardens. The attraction may be Niagara Falls or Plymouth Rock, Pike's Peak or Faneuil Hall, a famous art museum or the dinosaur tracks. Sightseeing covers every known human interest, educational, historic, scientific, social, economic and many others.

This phase of the study of the natural resources of Massachusetts is concerned with points of interest to sightseers in two ways. Of direct concern is the responsibility of the Department of Natural

Resources for the preservation and protection of historic sites and points of special scenic, scientific or educational significance that fall under its own jurisdiction. The establishment of state parks and reservations for this purpose is common practice in most of the States. The Standish Monument and Dighton Rock are examples of reservations and parks now under the administration of the Department which have historic or scientific interest.

FIG. 4. — *Partial Inventory, Points of Historic and Cultural Interest in Massachusetts.*

COUNTY.	Number of Buildings.	Miscellaneous Sites.
1. Barnstable	18	Site of Landing of Pilgrims Site of first wireless station
2. Berkshire	22	Hoosac Tunnel Mohawk Trail route
3. Bristol	23	— — —
4. Dukes	1	— — —
5. Essex	133	Saugus Ironworks restoration Rope Walk Derby Wharf (natural maritime historic site)
6. Franklin	11	Deerfield restoration Deerfield Academy
7. Hampden	16	Springfield Arsenal
8. Hampshire	12	Smith and Mount Holyoke colleges University of Massachusetts Dinosaur tracks Quabbin Reservoir
9. Middlesex	80	Concord-Lexington Battleground sites Harvard College Mount Auburn Cemetery Walden Pond
10. Nantucket	16	— — —
11. Norfolk	28	Granite Railway site Antique Automobile Museum
12. Plymouth	40	Plymouth Rock (National Shrine) Burial Hill First Thanksgiving site
13. Suffolk	71	Boston Tea Party (Griffins Wharf) Boston Common Bunker Hill Dorchester Heights U. S. N. Shipyard (Charlestown) U. S. S. "Constitution" ("Old Ironsides") Granary, Copps Hill, Eliot, burial grounds
14. Worcester	18	Purgatory Chasm Sturbridge Village Harvard Forest
Total	489	

The Trustees of Reservations have for many years worked on a program directed toward the preservation and protection of areas of historic, scientific, scenic or other special significance at the state level. The 28 reservations under their jurisdiction include the William Cullen Bryant homestead in Cummington, the dinosaur foot prints in Holyoke, and the Old Manse in Concord. The cities and towns, numerous historical societies and other organizations, public, quasi-public and private, own or administer a large number of buildings and areas of historic or other cultural significance.

This study is also concerned with a somewhat less direct but no less important aspect of sightseeing. This is the interdependence of natural and cultural resources. Planning for public outdoor recreation, for the residents of the State and the vacation travelers, is strongly affected and influenced by the cultural resources.

Fig. 19 (chart) indicates that the primary purpose of 80 per cent of the vacation travelers who come to Massachusetts is to visit historic sites. As would be expected, however, the chart also shows that this is not their only purpose. Nearly half of them are interested in swimming and 60 per cent want to fish, camp out, go boating, hiking or horseback riding. Thus, few, if any, of the vacation travelers come to Massachusetts for the purpose of gratifying a single desire. While they are here seeing historic sites and other points of interest, they like also to enjoy the features of outdoor recreation.

Planners for outdoor recreation in Massachusetts are fully aware of the interrelationship between what is termed ordinary recreation and the special recreation that people derive from sightseeing. Massachusetts has unusual attractions for the sightseers. Fortunately, it also has natural resources vital to the other types of outdoor recreation.

This discussion of the cultural resources is included here because, in part, such resources have, and will continue to have, direct bearing on the ownership and administration of state parks and other reservations. Even more important, leaving them out of account would make the evolution of a properly balanced public outdoor recreation program for the State impossible.

The state parks and forests, the reservations, the ocean beaches, the Bay Circuit, the Great Ponds and the tourist routes, together with all the other recreational appurtenances, state, municipal and

private, affect the impression people will gain of the State. If Massachusetts hopes to continue to get its fair share of the vacation travel business, it must, to the fullest extent possible, achieve and maintain effective co-ordination of all of its many and varied attractions.

Because a complete inventory of the cultural resources of Massachusetts is not a function of this study, such an inventory has not been attempted. Fig. 4, page 44, is a partial list of some of the more outstanding points of interest.

ANALYSIS.

The social and economic lives of the American people are undergoing profound modification. Two of the major factors influencing this modification are the increase in the population and the rising standard of living. Fig. 5 (chart) shows that the population of the Nation in 1955 was more than 165 million, more than three times the population in 1880. It also shows that, between 1930 and 1955, the population increased by nearly 35 per cent.

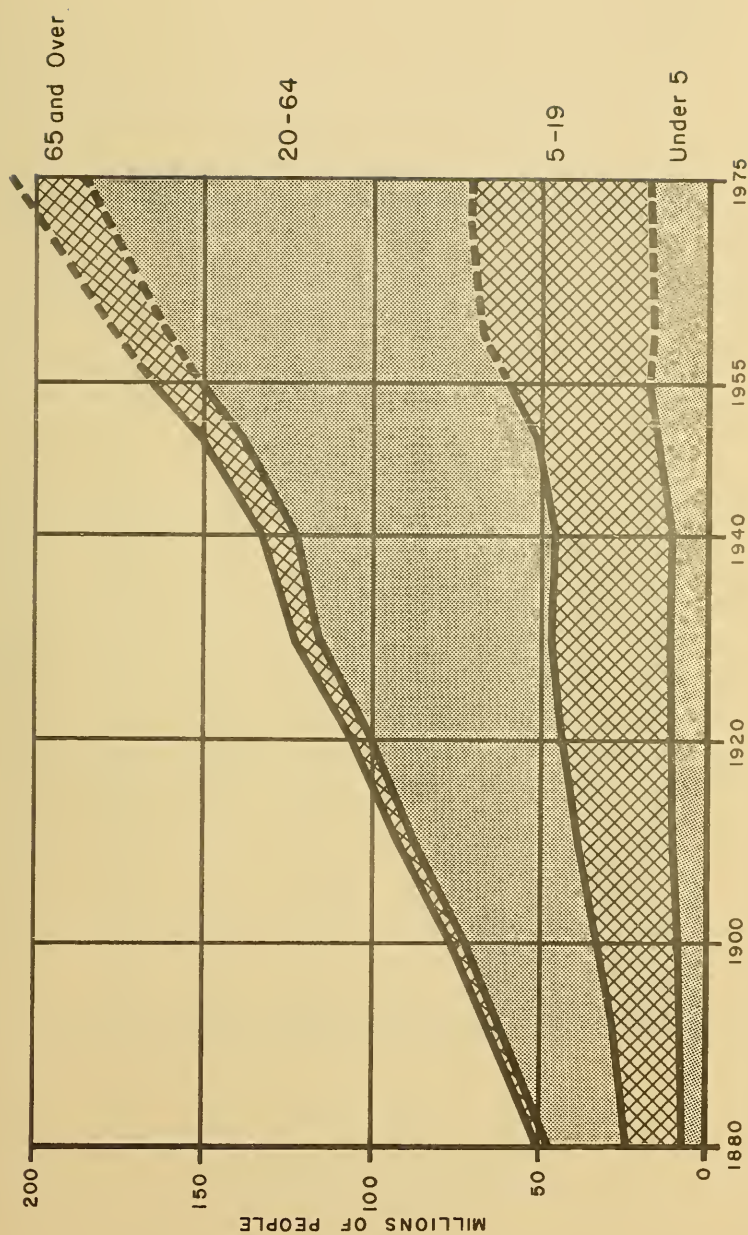
Population Trends.

Nearly half of the people live on less than one half of one per cent of the land. The fact that the total area per inhabitant in the Nation, land and water, has fallen from about 38 acres in 1880 to less than 12 acres today is of only secondary significance. The space is much less evenly divided now than it was formerly. Whereas in 1880, the portion of the population classified by the Census Bureau as "urban" consisted of only 14 million people, 28 per cent of the total, the urban population of 89 million in 1950 comprised 59 per cent.¹ During this seventy-year period the urban population increased by nearly 540 per cent, while the rural population increased by only 72 per cent. See Fig. 6 (chart).

In the 12,733 square miles covered by the larger cities and their suburbs in the Nation there were, in 1950, more than 69 million residents — nearly 46 per cent of the entire population. There were, on the average, 5,438 residents per square mile — 8.5 per acre. This puts each resident on a little less than 0.12 of an acre

¹ The Bureau of the Census distinguished between "urban" population and the population of "urbanized areas." Urbanized areas comprise the larger cities and their suburbs. Some of the urban population lives in the smaller cities and in towns.

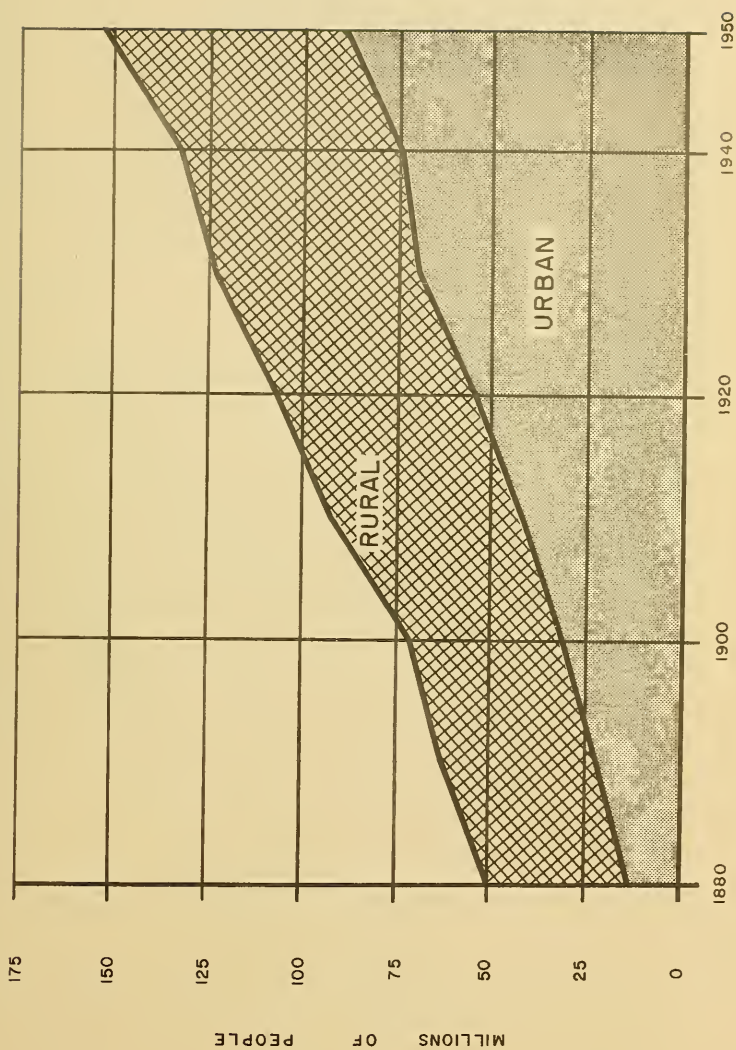
Figure 5
U.S. POPULATION AGE GROUPS



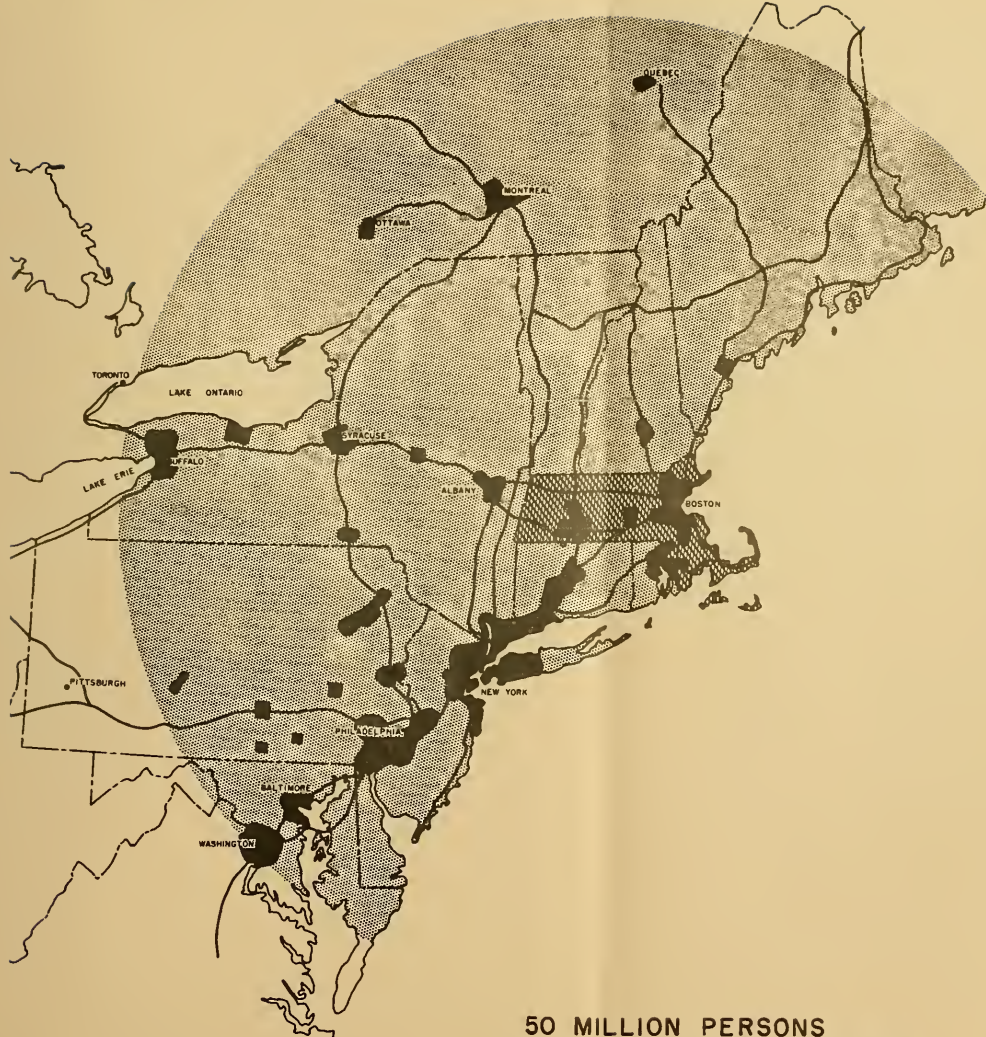
Source: U.S. Bureau of the Census



Figure 6
U.S. POPULATION CHARACTERISTICS
1880 - 1950



Source: U.S. Bureau of the Census



50 MILLION PERSONS

Within One Day's Drive of Massachusetts

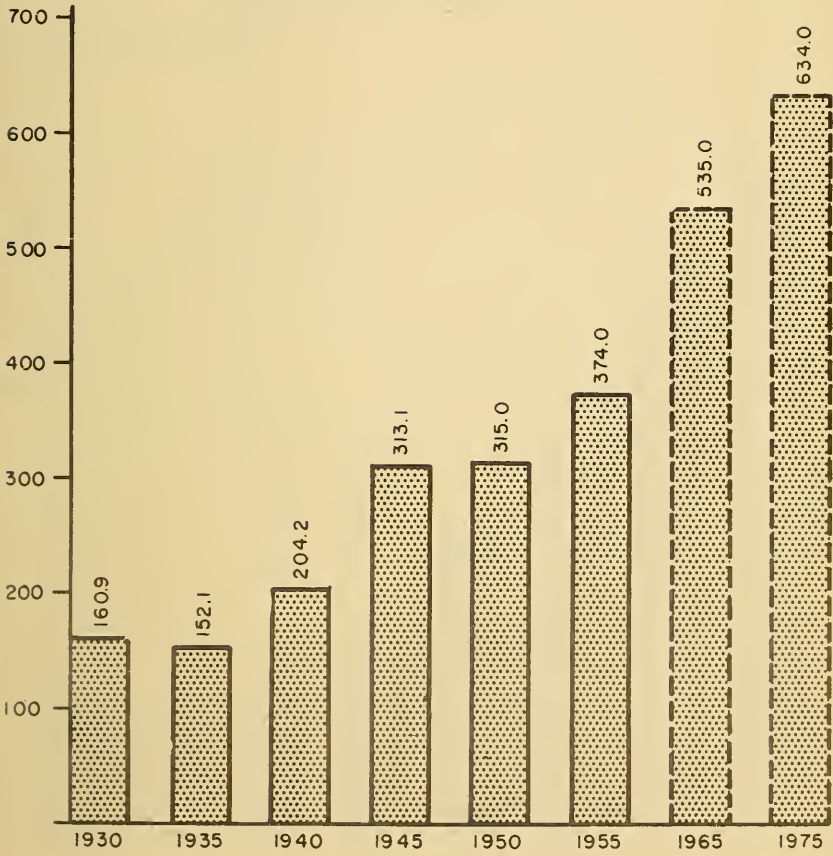


29 MILLION LIVE IN THE URBANIZED AREAS

Figure 9

GROSS NATIONAL PRODUCT

\$ Billions (1953 Dollars)

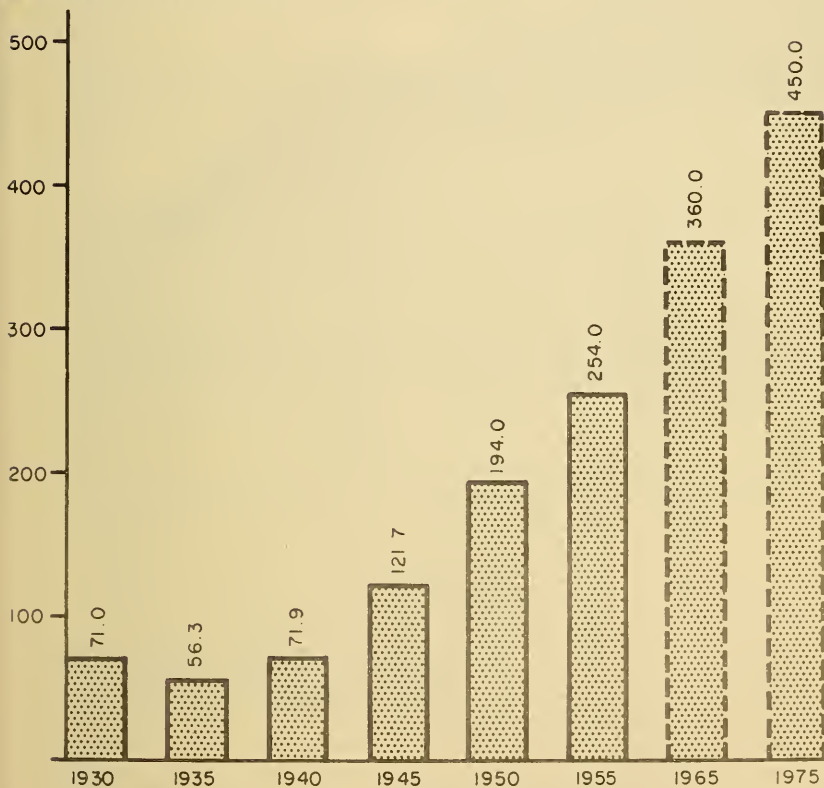


SOURCE: JOINT COMMITTEE ON THE ECONOMIC REPORT, U.S. DEPT. OF COMMERCE, NATIONAL PLANNING ASSOCIATION, PRESIDENT'S MATERIALS POLICY COMMISSION

Figure 10

PERSONAL CONSUMPTION EXPENDITURES
United States 1930-1975

\$ Billions (Current Dollars)

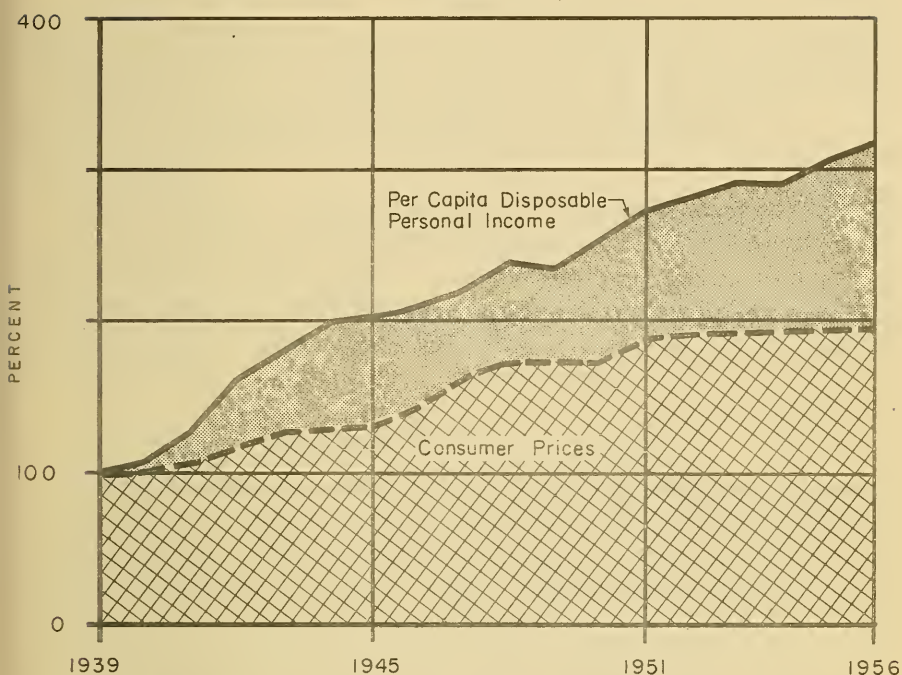


SOURCE: U.S. DEPT. OF COMMERCE—OFFICE OF BUSINESS ECONOMICS. FORECASTS
FOR 1965 AND 1975 BY EDWARDS, KELCEY AND BECK.

Figure 11

INDEX OF PER CAPITA DISPOSABLE PERSONAL INCOME AND CONSUMER PRICES 1939-1956

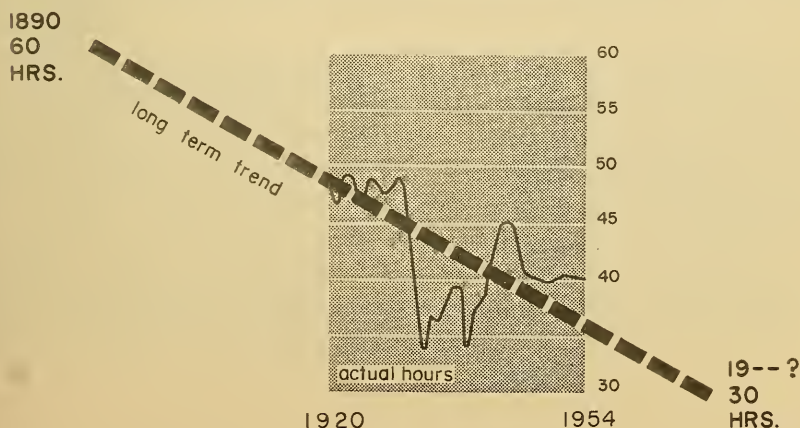
1939=100%



Source: U.S. Dept. of Commerce - Office of Business Economics, Bureau of Labor Statistics

Figure 12

AVERAGE WORK WEEK U.S.A. MANUFACTURING WORKERS



— an area 72 feet square. On the other hand, there were still 23 acres per inhabitant in the rest of the Nation. Fig. 7, page 48, shows population densities in some of the urbanized areas in the northeast. Of the 50 million persons who live within one day's travel of Massachusetts, 29 million live in urbanized areas (see Fig. 8 (map)).

It is not difficult to understand why dwellers in the cities have an urge to get off their little 72-foot squares and go to places where they can stretch their limbs — where they can hunt, fish, swim, camp out, hike, ski and otherwise enjoy themselves in the appealing wide open spaces where there are lakes, streams, mountains, meadows and woods.

The Rising Standard of Living.

That the people are doing this is common knowledge. A glance at the economic indicators of modern American life brings understanding of the rising standard of living of which the growth of outdoor recreation is a part. Fig. 9 (chart) shows how the gross national product, the total value of all goods produced and services rendered in the United States, has risen and promises to continue to rise, regardless of the shrinking purchasing power of the dollar. Between 1930 and 1955, the per capita share of the gross national product rose from about \$1,310 to nearly \$2,270. This is an increase of 73 per cent.

During the same period, total expenditures for personal consumption by all the people in the Nation rose from \$71 billion to \$254 billion, as Fig. 10 (chart) shows. The increase in the population accounts for only \$25 billion of this rise of \$183 billion. The other \$158 billion is the greater amount of money people have available for spending.

If the cost of living had gone up proportionately, the people would be no better off than they were formerly. However, Fig. 11 (chart) shows that this has not been the case. Since 1939 the cost of living has only slightly less than doubled. Per capita disposable income (what is left after taxes) has, however, a little more than trebled. People are, in other words, more than half again as well off, on the average, as they were in 1939. The bare necessities take a considerably smaller share of their available funds. They have more to spend on cultural and pleasurable pursuits.

FIG. 7. — *Population Densities of Urbanized Areas in Northeastern United States. 1950.*

URBANIZED AREA.	Population.	Land Area (Square Miles).	Population per Square Mile.
Albany-Troy	291,897	54.5	5,356
Baltimore	1,161,852	151.8	7,654
Boston	2,223,448	344.8	6,478
Bridgeport	237,435	42.6	5,574
Buffalo	798,043	101.0	7,901
Hartford	300,788	52.9	5,686
New York, and Northeastern New Jersey . . .	12,296,117	1,253.4	9,810
Philadelphia	2,922,470	311.6	9,379
Pittsburgh	1,532,953	253.6	6,045
Springfield-Holyoke	356,908	167.3	2,133
Washington, D. C.	1,287,333	178.4	7,216
Worcester	219,330	43.6	5,031

More Leisure Time — Greater Mobility.

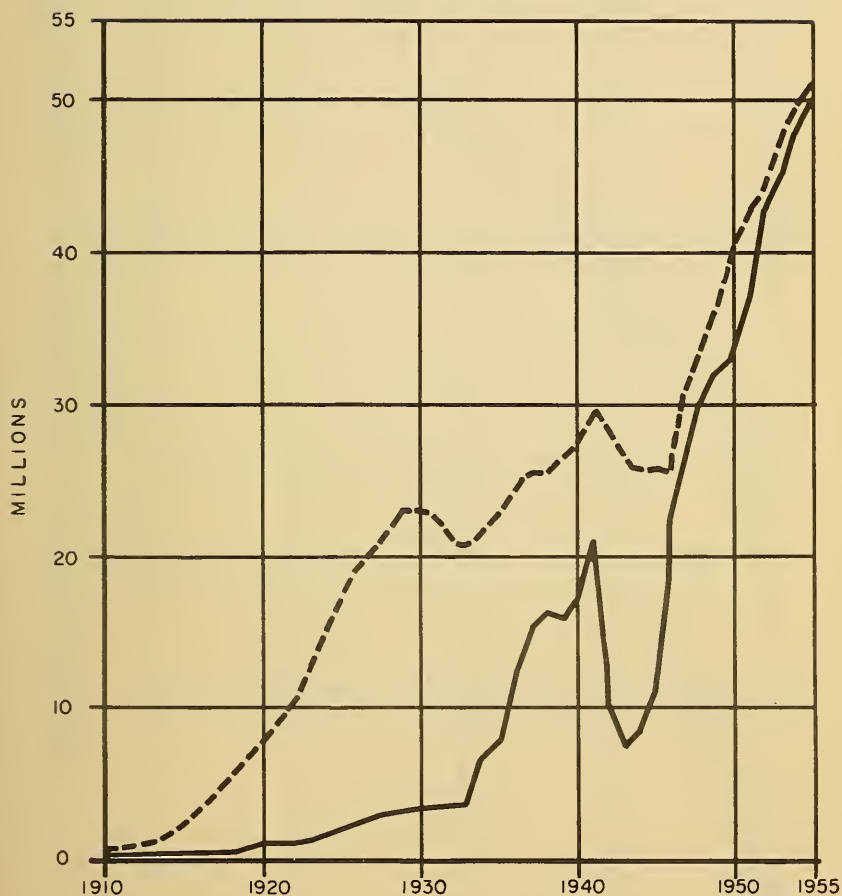
In 1890 the average wage earner in the Nation worked some 60 hours a week. After eating, sleeping, commuting and attending to other daily needs, he had perhaps ten to fifteen hours a week for leisure. By 1955, with an average work week of about 40 hours and fewer household chores, 35 to 50 hours were available. The decline in the work week has been fairly steady, averaging about three hours per decade. It results from increased industrial productivity per man-hour, which has been going up at the rate of 2 to 3 per cent per year. How the average work week is declining is shown in Fig. 12 (chart).

Increased leisure for the wage-earner has been accompanied by an easier life for his wife. Innovations in household appliances which reduce physical and time-consuming effort, and developments in food marketing, which reduce the preparation of meals from hours to a few minutes, have proceeded at a rapid pace since the nineties.

Coupled with the shorter work week is a trend toward more paid vacations and holidays. Since the beginning of World War II average paid vacations have increased from one to two weeks per year,

Figure 13

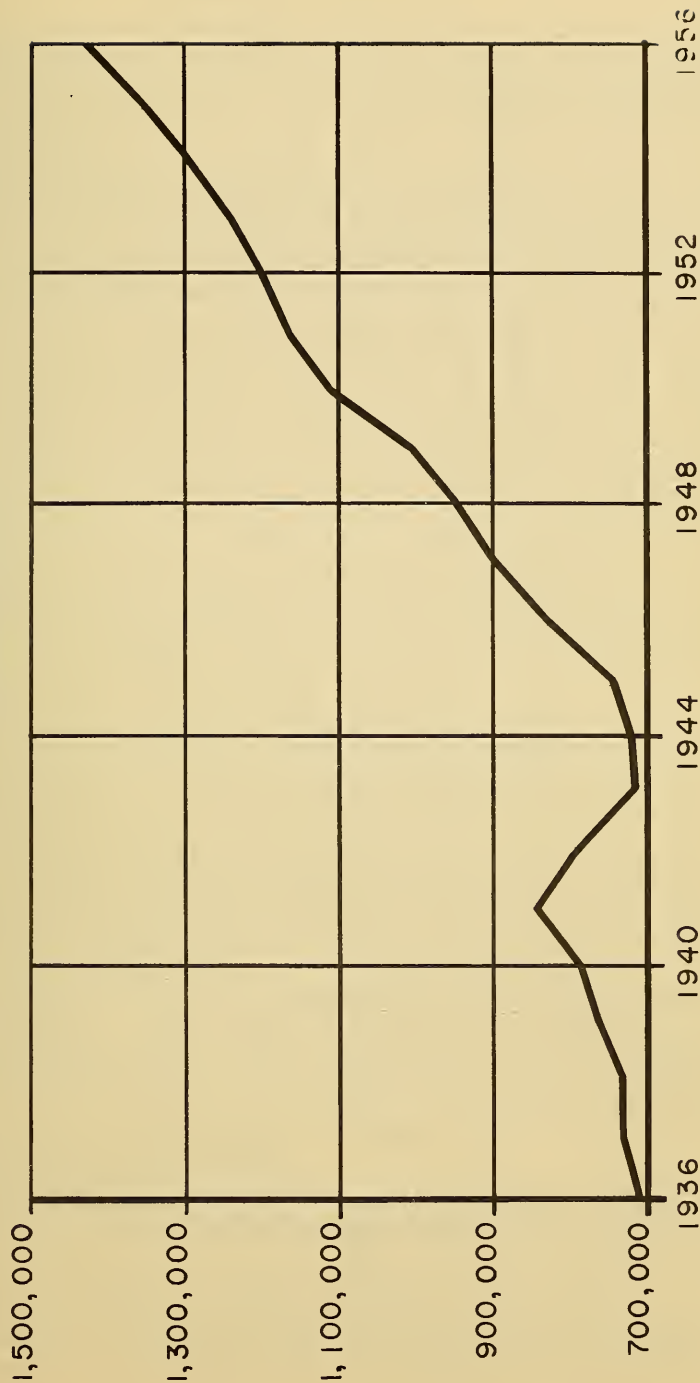
U.S. AUTOMOBILE REGISTRATION ---
AND
VISITORS TO NATIONAL PARKS —
1910 - 1952



SOURCE: AUTOMOBILE MANUFACTURERS ASSOCIATION, NATIONAL PARK SERVICE.

Figure 14

MASSACHUSETTS AUTOMOBILE REGISTRATION
1936-1956



Source: Massachusetts Registry of Motor Vehicles

and paid holidays are spreading to larger segments of the working force. Ninety-five per cent of all labor-management agreements signed in 1955 provided for paid vacations — half of them up to three weeks or more.

In 1900, the average American could expect to live to the age of 47. Today his life expectancy is 69 years. This achievement of fifty years of progress in medical science and public health has great meaning in terms of recreation. Fig. 5 (chart) shows that in 1880, 2 million people — 4 per cent of the population of the United States, were more than 64 years of age. By 1950, these senior citizens numbered 12 million — 8 per cent of the population. This growing segment of the public is quite generally eligible for old-age insurance, retirement at the age of 65, and has the benefit of improved medical services. It has time and money to spend and represents an entirely new clientele for recreation services whose needs must be considered in park and recreation planning.

An element of great influence upon leisure-time activities is the increased ease and speed of travel. Time has now replaced distance as a factor in considering a trip for pleasure.

A family of 1895, bound for a day's outing, or going on vacation, depended on a steam train, a trolley car, a steamboat or a horse and carriage. Fig. 13 (chart) shows the 10,000 per cent increase in private passenger automobiles in the Nation since 1910. During the last twenty years, the number has increased by more than 120 per cent. Fig. 14 (chart) shows that during this same period automobiles in Massachusetts increased in only a little less than the same proportion. There is at present slightly less than one passenger automobile to every three people, both in the Nation and in Massachusetts. The automobile is today the principal means of transportation to park and recreation areas. Fig. 13 (chart) shows how closely parallel the increase in automobile registrations and the increase in the number of visitors to the national parks have run during the last decade.

The automobile has changed the pattern of family recreation. The motorized family of 1957 is a highly mobile, far-ranging group to which distance is no drawback. This is an inevitable fact of life with which the planners of public recreation facilities have to cope.

The increased use of automobiles has brought about tremendous improvements to, and expansion of, the highway systems of the

Nation and the Commonwealth. Driving times have been reduced to at least half of what they were twenty-five years ago. At that time little was left of a day after a tiring drive from New York to Boston. The opening of the Massachusetts Turnpike will bring Buffalo to within the same driving time as New York was in those days, and the trip will be less fatiguing.

A number of recent studies arrive at similar conclusions indicating the extent to which automobiles have replaced mass transportation as means of going on vacations. The American people are using the railroads, the airlines, buses and other common carriers for only 15 per cent of their vacation travel. They make 85 per cent of their trips in their automobiles. They travel an average distance of nearly 2,200 miles, 800 miles more than they travelled in 1948.

More people have more leisure time, more money to spend on recreation and vacations, a greater urge to get into the open where they can breathe more freely than they can in their citified environments, and particularly, they have their own means of getting away, even far away. They look increasingly on recreation and vacation facilities as normal requirements.

Where They go — How Much They spend.

Since 1930, annual expenditure for recreation by the American people has remained consistently at close to 5 per cent of their total expenditure for personal consumption. While total expenditures for personal consumption grew from \$71 billion in 1930 to \$254 billion in 1955, expenditures for recreation maintained the same pace and grew from \$3.6 billion as shown on Fig. 10 (chart), and Fig. 15 (chart). In each case, expenditures in 1955 were nearly four times as great as they were in 1930.

Reference to the records of The National Park Service discloses even more impressive evidence of the growth of the recreation-mindedness of the people, particularly as it affects the outdoors. In 1930, the total number of visitors to the national parks was 3.25 million. In 1955 it was 50 million — fifteen times as many. The U. S. Forest Service reports that the yearly number of recreation visitors to the National Forests was nearly seven times as great in 1955 as it was in 1930—up to 45.7 million from 6.9 million.

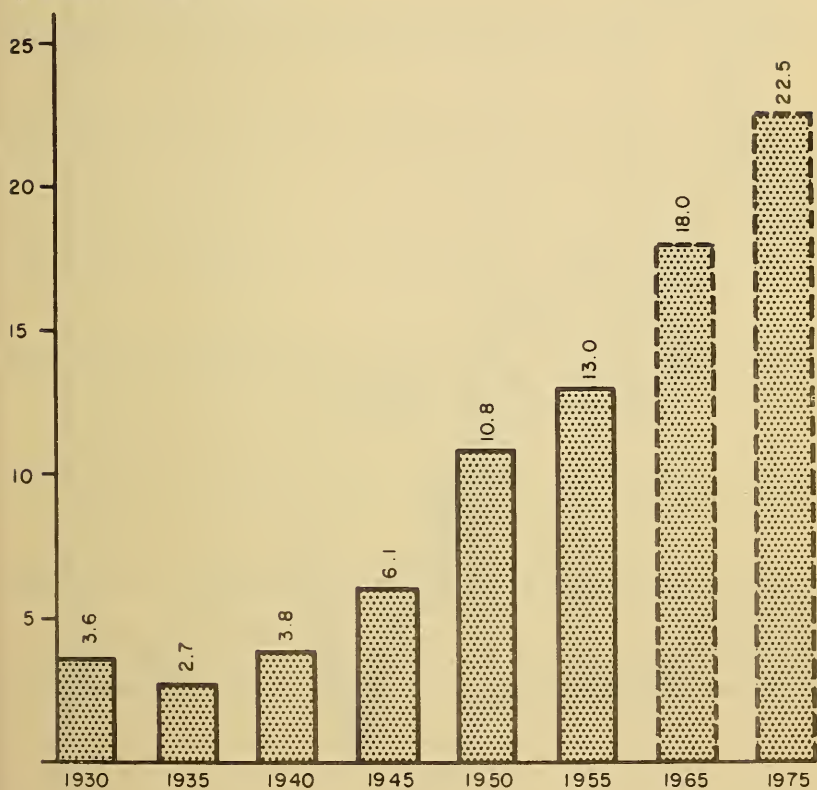
Between 1941 and 1955, the total attendance per year at all the state parks in the Nation grew from 97 million to 183 million — a

Figure 15

EXPENDITURES FOR RECREATION

United States 1930-1975

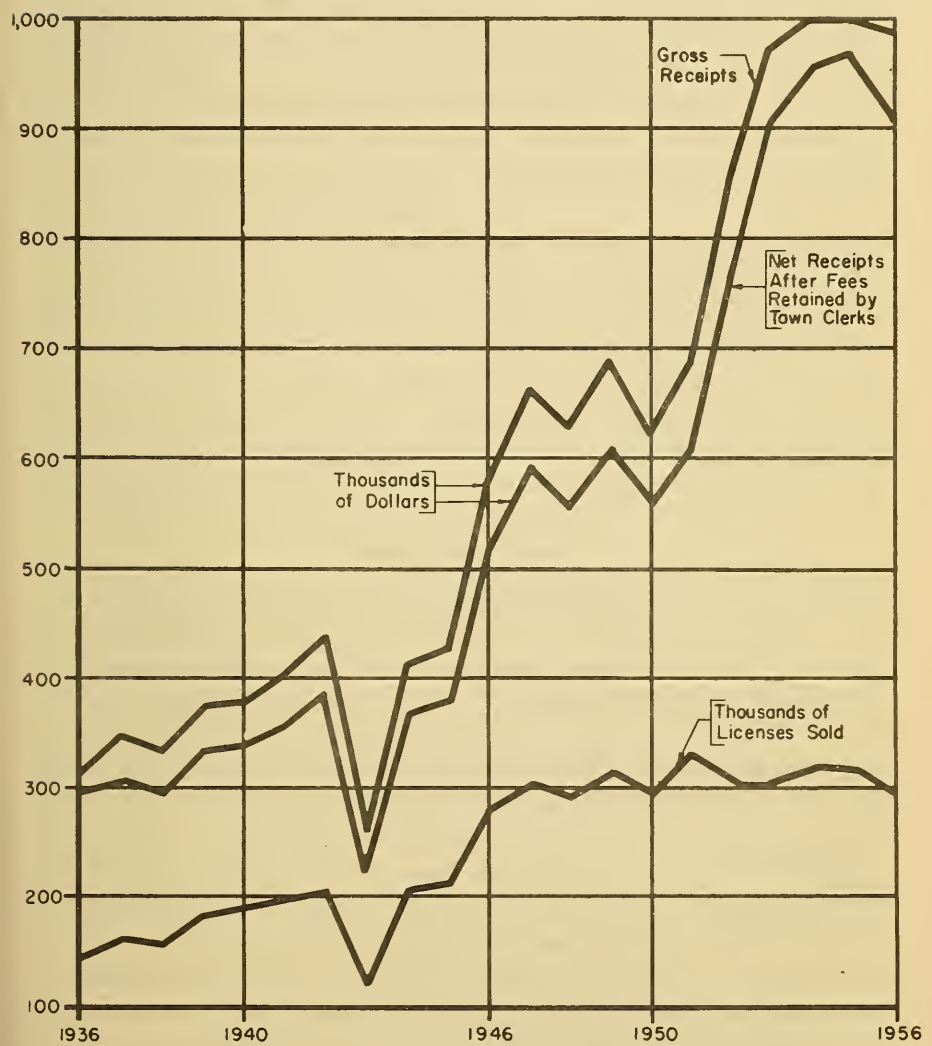
\$ Billions (Current Dollars)



SOURCE: US. DEPT. OF COMMERCE—OFFICE OF BUSINESS ECONOMICS, FORECASTS FOR 1965 AND 1975 BY EDWARDS, KELCEY AND BECK.

Figure 16

SALE OF HUNTING , FISHING AND TRAPPING
LICENCES IN MASSACHUSETTS
1936 -1956



SOURCE: MASSACHUSETTS DIVISION OF FISH AND GAME

little less than twice as many. The number of visitors using overnight accommodations in the state parks was, however, four times as great in 1955 as it was in 1941, having increased from 2.9 million to 11 million. The number of camper days on tent and trailer sites was nearly five times as great.

Although attendance at public recreation centers in the Massachusetts state parks and state forests had already reached a high level in 1948, it had increased still further by nearly 25 per cent by 1954. The number of people using overnight facilities increased, however, much more strikingly. It was more than three times as great in 1954 as it was in 1948.

Continuously greater numbers of people are going fishing and hunting in Massachusetts. Fig. 16 (chart) shows that between 1936 and 1956 the number of licenses issued more than doubled. This is in spite of a gradual reduction in the area open to the public for hunting and the growing tendency for good fishing places to be taken over by private groups or otherwise removed from use by the public at large. The Massachusetts Division of Fisheries and Game estimates that these hunters and fishermen spent \$74,000,000 in the State in 1951.

Future Prospects.

How do future prospects affect the planning of the public agencies responsible for providing outdoor recreation facilities? Will the demand continue to grow or can they anticipate a gradual leveling off? Analysis of the factors affecting future growth discloses no evidence that the beginning of the levelling-off period is yet in sight. Fig. 5 (chart) shows that the Bureau of the Census estimates that in 1975 the population of the Nation will be at least 207 million, 42 million more than in 1955, and that there will be 20.5 million people over 64 years old in contrast to the 14 million in this age group in 1955. The upward trend in both respects will be more rapid than it was during the past twenty years. The experts also tell us that the trend toward still greater urbanization will continue. They foresee no let-up in the tendency for the population to become more and more concentrated in expanding urbanized areas and their fringes as industrial activity continues to be the dominant factor in the national economy.

Fig. 9 (chart) shows that the Gross National Product is expected to rise more rapidly during the 1955-1975 period than it did

between 1935 and 1955. The per capita share is expected to increase from \$2,270 in 1955 to \$3,060 in 1975 — 35 per cent. These are adjusted figures making allowance for changes in the purchasing power of the dollar.

Fig. 10 (chart) presents a forecast of what the American people will spend for all types of personal consumption during the twenty years following 1955. These figures are not adjusted for inflationary tendencies. Consumer expenditures are expected to continue to increase at the 1935 to 1955 rate of slightly less than ten billion dollars per year.

If the total national expenditure for recreation remains at close to 5 per cent of personal consumption expenditure, as it has during the past twenty-five years, it will rise to \$22.5 billion per year by 1975, almost 10 billion more than it was in 1955, as Fig. 15 (chart) indicates. This is 73 per cent more.

Because of the uncertainties surrounding future price changes, no attempt is made to forecast the relationship between per capita disposable income and consumer prices in Fig. 11 (chart). The chart shows that, while consumer prices almost doubled between 1939 and 1951, they have changed only slightly during the past five years, while incomes have continued to rise with no indication of a slow down. If these trends continue as they have, people will be still better able to spend money for recreation and vacations than they are at present. The U. S. Forest Service estimates that average disposable personal income will be in excess of \$2,000 per year in 1975. Since this is only \$356 per year more than the actual 1956 figure, it seems sufficiently conservative. The indication is that, by 1975, the available funds of an average family of four, after taxes, will be in excess of \$8,000 per year.

If the average work week in manufacturing in the Nation continues to shorten as it has in the past, it will be down to 30 hours by 1970. While there is no certainty that this will be the case, there is little basis for doubt that, as technological advance results in increasing worker productivity, work days and work weeks will continue to shorten. As this occurs, leisure time for recreational activity and travel will lengthen. Management experts are saying that four-day weeks and full month vacations are not far off.

The future economic prospects of the American people provide ample assurance that they will keep themselves provided with

means of private transportation at least equivalent, on a per capita basis, to what they have now. There will be still more automobiles and, in all probability, better automobiles. Highway improvements and expansions, already under construction or in late planning stages, are designed to provide operating space for the increasing number of cars. There can be little question but that, as long as America prospers, highway demands will be given a high priority. It can be confidently expected that by 1975 it will be possible to drive an automobile from one place to another with still greater ease than is possible today.

The automobile is recognized as the standard means of travel today. This is particularly true in the case of vacation and outdoor recreation travel. Whether other standards will arise — whether the helicopter or some other device will replace the automobile as the automobile replaced the trolley car, — is an academic question as far as planning for outdoor recreation is concerned. The automobile will continue to be a tool for keeping the pressure on recreation and vacation facilities. It will not be replaced until some other tool is devised which will increase recreational pressure.

More people will have more leisure time, more money to spend on recreation and vacations, and probably better health twenty years from now than they have today. They will in all probability have transportation facilities at least as good — probably better. They will continue to desire to get out into the open as an offset of living in congested surroundings. What does this probably mean in terms of the future demand for outdoor recreation facilities?

All of the economic and social tendencies discussed above will combine to produce a cumulative effect. The formula for computing this cumulation is obviously a complicated one. Experience teaches us, though, that we are more likely to underestimate than to overestimate. Inadequacy of school, highway and water supply systems, playgrounds, auditoriums and numerous other public facilities is a common condition today, partly because of earlier underestimates.

We can feel quite certain that, unless some unforeseen change takes place, the demand for facilities for public outdoor recreation will increase at least in proportion to the population growth. Even if there were no prospect of an increase in the population, the demand would still expand because of the rising standard of living —

the larger amount of available cash, the shorter work week, the improved highway systems and the increase in the number of retired people.

The growth of the population alone can be expected, other things being equal, to increase the demand for opportunities for public outdoor recreation by at least 20 to 25 per cent. Giving weight to the influence of the other factors tending to push the demand up makes it appear that, by 1975, the demand will be at least twice what it is now. If facilities are adequate now, planning must be based on recognition of a need of doubling them, during the coming 20-year period. This means an average expansion of 5 per cent per year on the basis of the facilities provided in 1955.

Analysis by the U. S. Forest Service of the future need for camp and picnic family units on the national forests has resulted in a similar conclusion. They estimate that, between 1955 and 1962, the number needed will increase from 57,700 to 83,500. This is at the rate of 6.4 per cent per year on the 1955 base.

The above calculation of future needs for public outdoor recreation is for the United States as a whole. The future prospects of Massachusetts are similar to those of the Nation in all but one respect. As an older, more fully developed State, Massachusetts probably cannot look for an increase in population at a rate equal to that of the whole Nation. It seems safer to forecast that the population of the Commonwealth will increase by 12 per cent between 1957 and 1977 in contrast to the expectation of a 25 per cent increase for the Nation.

Adjusting for this difference brings the conclusion that, if Massachusetts has adequate accommodations now, it should plan on increasing them by 90 per cent — to only slightly less than double the present capacity by 1977. Massachusetts should, however, take into account the opportunity it has to build up its vacation travel business. The State can, without serious question, safely base its planning program on the assumption that, *if the accommodations were adequate in 1957, they will have to be doubled to be adequate in 1977.*

Unfortunately, our study of the existing facilities brings us to the conclusion that they are not adequate to the present need. It indicates that the peak capacity (the number that can be accommo-

dated at one time) of the public outdoor recreation facilities in the state parks and forests in Massachusetts is, at present, about 34,000 people. This is about three quarters of 1 per cent of the population — 1 out of every 133 people.

Massachusetts is fortunate in having a system of public ocean beaches the estimated peak capacity of which is 385,000 people — 8.5 per cent of the population. This is 1 out of every 26 people.

However, 80 per cent of the ocean beach capacity lies within the Metropolitan Parks District, where 2 million people, more than 40 per cent of the State's population, live. Within this district, where the beaches can accommodate 15 per cent of the resident population, use on peak days taxes their capacity heavily. This does not necessarily mean that 1 out of 7 of the inhabitants of the district goes to district beaches. These beaches also attract people from farther away.

State-operated public beaches outside the Metropolitan Parks District exhibit symptoms of impending inadequacy and a need for continued expansion and development. Work, which will result in increasing the capacity of this beach system, is now under way.

The significant observation is that, while the ocean beaches play, and will continue to play, a major part in the satisfaction of the demand for public outdoor recreation, they do not, nor will they ever, meet the needs of all the people of the Commonwealth. The present overcrowding of the accommodations in the inland parks and forests and on the fresh water beaches is proof of this.

Reports and testimony supplied by state forest and park supervisors in Massachusetts point toward the present existence of a deficiency of facilities in relation to the popular demand. This is particularly true of opportunities for swimming and other water activities, parking, camping and picnicking. The shortage of facilities for day use is most acute in the eastern portion of the State and in the neighborhood of the heavier concentrations of population in the rest of the State.

Whatever the reasons, and they are obviously numerous, the truth is that in spite of the fact that the Commonwealth has fine ocean beaches, the inland rivers, streams, lakes, forests and mountains continue to draw large numbers of people, both residents and

vacation visitors. The unavoidable conclusion is that the provision of accommodations for only 34,000 people at one time in our state parks, forests and reservations is grossly inadequate.

During the eight-year period 1948 to 1955, inclusive, the expenditure in Massachusetts for land acquisition and development of public recreation accommodations in its state parks and forests was, *on a per capita basis*, only a little more than half the average expenditure of all the other States for these purposes. This is in spite of the fact that, on the basis of income, the Commonwealth appears as well able to afford such expenditure as, on the average, the rest of the States in the Nation.

Fig. 17 (chart) is presented to show, in detail, the extent to which the capital outlay in some of these States has, on a per capita basis, exceeded that of Massachusetts. None of these States is more financially able to make this outlay than is Massachusetts, as the data on average annual personal income indicate.

Quality of accommodations is of equal, or greater, importance than quantity. Little benefit will result from a mere increase in space if there is no improvement in the amenities. Planning must, furthermore, take vacation travel into account. Although most vacation travelers patronize private accommodations, and will in all probability continue to do so, it cannot be assumed that this is true of all of them. The Department of Natural Resources can assist in the program of keeping Massachusetts able to compete for its fair share of vacation travel business.

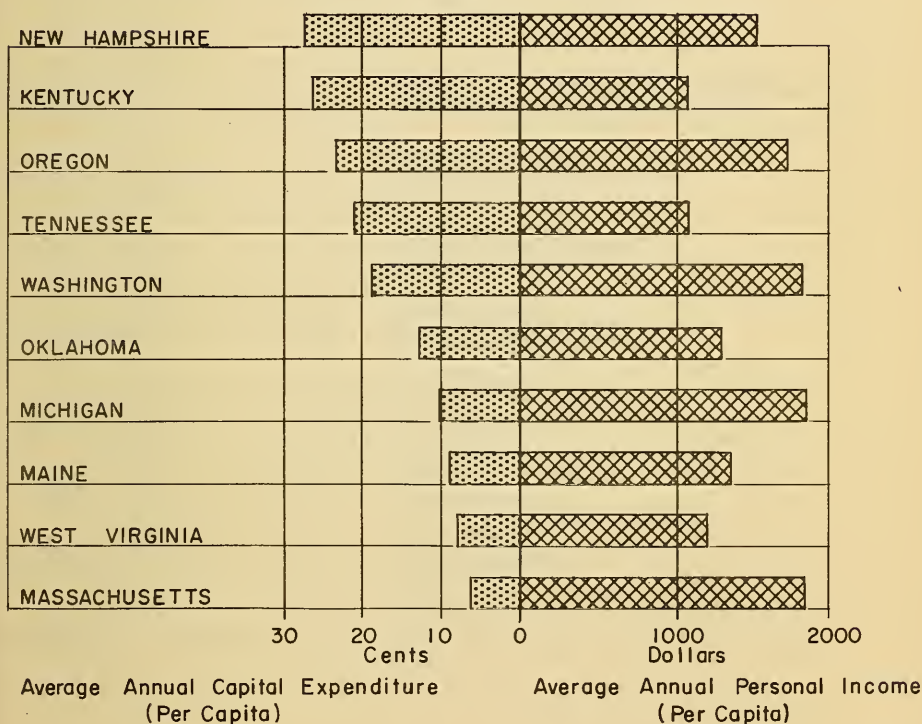
Careful consideration of all the available evidence and the standards in effect in many other States brings us to the conclusion that, in 1955 and at present, the aggregate need for public outdoor recreation in the state parks and forests exceeds the facilities by at least 100 per cent — possibly by as much as 200 per cent. There are at the best, in other words, only about half the needed facilities at the present time. At the worst, the existing facilities meet only one third of the need.

If we make the most optimistic interpretation — that there is a current need for twice the existing accommodations, we conclude that they will have to be quadrupled by 1975, if they are to be adequate at that time. This means that accommodations equal to 15 per cent of those now existing will have to be installed each year. Such a program would lack realism because it would result in a

Figure 17

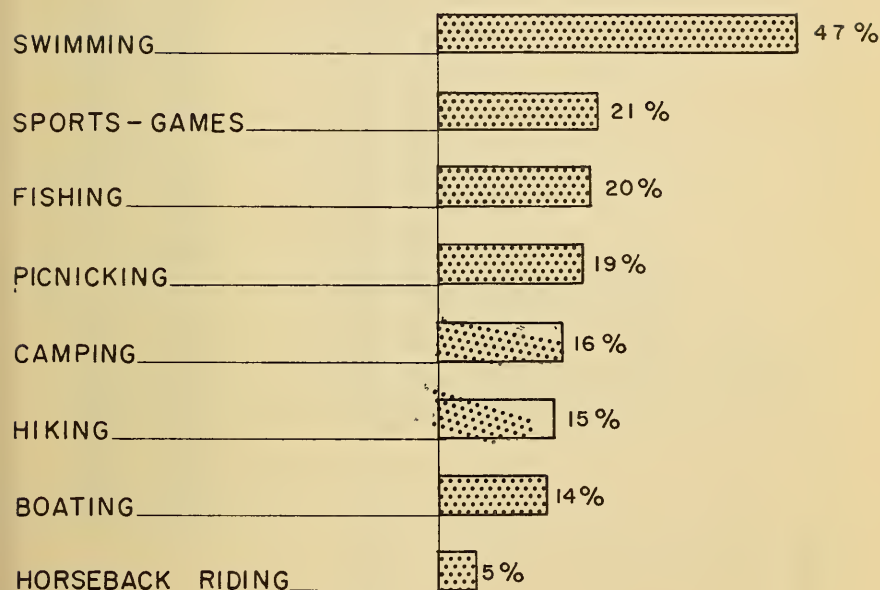
PERSONAL INCOME AND CAPITAL EXPENDITURES FOR STATE PARKS
(Land Acquisition and Improvements)

1948-1955



Source: U.S. Department of Commerce—Office of Business Economics, National Conference on State Parks

Figure 18
RECREATION PREFERENCES
State Park Visitors in the U.S.

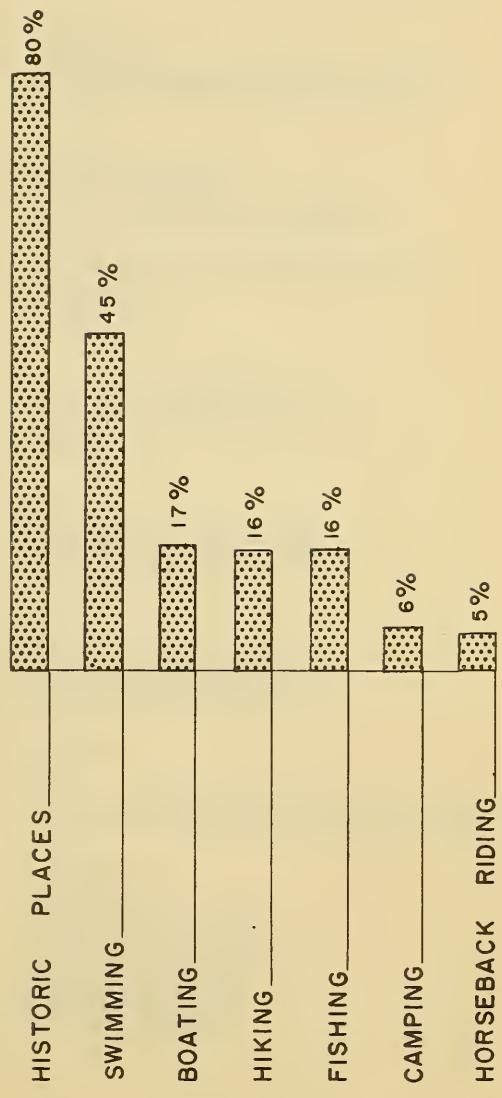


Source: "A Study of the Park and Recreation Problem of the United States"
by The National Park Service - 1941

Figure 19

RECREATION PREFERENCES

Massachusetts Vacation Travelers

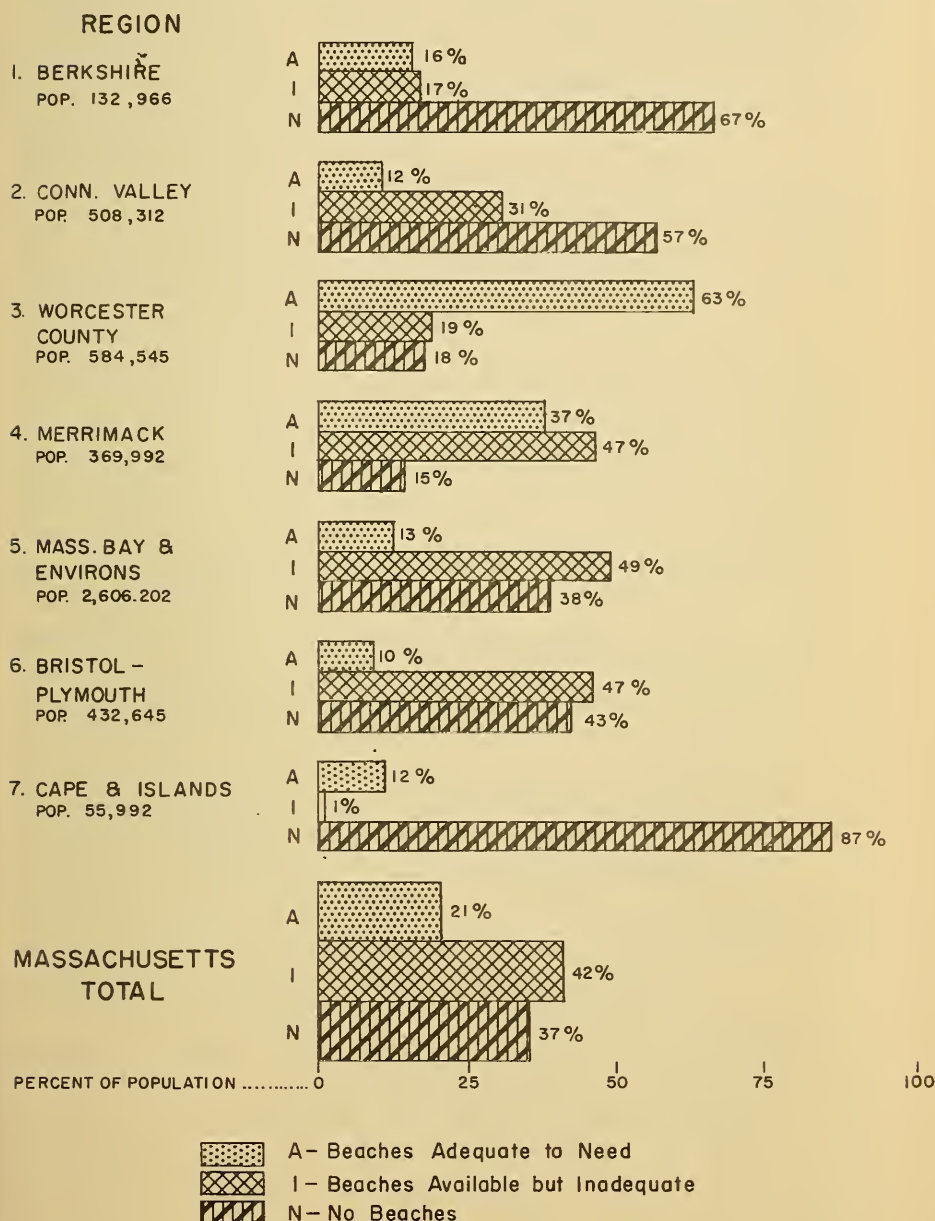


Source: "Massachusetts Vacation Survey" by Massachusetts Development and Industrial Commission - 1949

Figure 20

MUNICIPAL FRESH WATER BEACHES AND POPULATION

(Available Beaches Expressed as % of Population)



shortage of facilities which, although diminishing, would still persist throughout the coming 20-year period.

Ideally, the deficiency should be eliminated at once by doubling the facilities this year. Obvious practical difficulties stand in the way of such a program. It should, nevertheless, be reasonable to consider a program under which the facilities will catch up with the needs in five years — by 1962.

If, as we anticipate, the *demand* will double between 1955 and 1975, we can expect it to increase by 35 per cent between 1955 and 1962. This means that the *facilities* should be increased annually for five years by 35 per cent of what they were in 1955. This is an overall target — not a proposed program for any single location or recreational activity.

Deficiencies vary, as has been said, both with respect to specific locations and recreational activities. Figs. 18 and 19 (charts) show the preferences of state park visitors nationwide and vacation travelers to Massachusetts for various forms of activities. The overwhelming desire of vacationists coming to Massachusetts is to visit historic sites. Otherwise, swimming is the preferred activity by a wide margin in both groups. There can be little question but that the provision of swimming facilities should be given a high priority in the Department's expansion program, whether it involves development of already-owned properties or acquisition of additional ones. Recognizing this affinity between recreation and water, many of the cities and towns own and operate municipal fresh water beaches. Fig. 20 (chart) shows, however, that such beaches are adequate to the needs of only about one fifth of the population. While ready access to salt water beaches partly compensates for this lack, particularly on the Cape and the islands, the shortage is so great in the western regions that two thirds of the people have no readily available municipal beaches.

Other activities deserving particular attention are fishing, picnicking and camping. These activities do not stand entirely by themselves, obviously, as compartmentized choices. An individual who wants to swim may also want to camp, fish or participate in other of the outdoor activities. Whatever the order of their choice may be, the fact is inescapable that recreation and water go hand and hand in the minds of most of the people. The more inland and ocean beaches and the more pleasing lakesides, the more people who

will find the satisfactions they are seeking. Their enjoyment of the scenery, the mountains and the forests is blunted, in large measure, unless they can spend at least part of their vacation or outing time in or near the water. The most critical aspect of the Department's acquisition and development program is made even more critical by the extent to which private development has already pre-empted desirable water frontages in all parts of the State. This is the heart of the problem that faces planners for public outdoor recreation in Massachusetts.

The Special Case of the Ocean Beaches.

Ocean beaches may be classified under five categories: —

1. *Federal.* — Of national interest and too large and too expensive for state or local management.

2. *State.* — Deemed necessary to meet the demands of large numbers of people but too large and expensive for local community operation.

3. *State-Municipal.* — Operated by a city or town, but upon which the general public demand is beyond the community's capabilities.

4. *Municipal.* — Primarily of local importance and of a size which permits operation by a city or town.

5. *Private-Public.* — Operated by a non-profit organization for general public use.

The movement for acquisition of land for state ocean beaches has never met with the popular approval of the townspeople and summer property owners of the coastal communities. Local reluctance and even outright opposition has resulted partly from a desire to preserve a degree of exclusiveness and partly from the fear that the State's establishment of a public beach would lead to a "honky-tonk" type of development. Formerly there may have been some foundation for this attitude. The only early examples of state beaches were those of the Revere or Nantasket type, where commercialized recreational facilities were predominant. Then, more recently, Salisbury Beach, which the Department of Conservation had visualized as a well-planned, dignified beach reservation suffered through many years of inferior development and operation because of lack of funds. It was not until 1953 that an adequate appropriation permitted the Division of Beaches of the Depart-

ment of Public Works to develop a facility of respectable scope and appearance.

Salisbury Beach, and the several other state beaches now under development, should convince townspeople everywhere that the State's participation in an ocean beach program will not have a detrimental effect upon the communities. Existing legislation should, and in effect does, provide that no state beach shall include any facilities other than those essential to the quiet enjoyment of the area by the people, and that, in so far as practicable, the site shall remain in its natural state.

But this should work both ways! If the State invests large amounts of the people's money in public beach developments designed to enhance and improve the general area, that investment should be protected by municipal zoning action to prevent improper development in the neighborhood of a beach reservation. This might even be carried further in the case of reservations close to town borders where protective zoning action by the containing town might be nullified by lack of such action by the adjoining community. Regional zoning would be the answer to this problem.

There is evidence now that the former suspicion and lack of local enthusiasm for a state beach program has diminished to a considerable extent. A recent survey of the Plymouth, Cape Cod, Buzzards Bay region revealed that practically every town has established beaches for the use of the general public. In addition, many have extensive improvements either under way or in the planning stage. Twenty-six of the towns have 147 beaches with parking space for 15,000 cars, and swimming for 60,000 persons. Some 30 of the locations are small town landings, which, though not providing ample parking areas, do permit access to the beaches. Fig. 21, page 60, (chart) shows the number and capacity of these beaches. Covering 60 per cent of the coastal towns outside the Metropolitan Parks District, this survey reveals convincingly that community participation can play an important role in the ocean beach program.

The present state beach system, including Crane's Beach, but not including that of the Metropolitan District Commission, has a capacity of 85,000 persons. The additional provision, by the towns in the Cape Cod-Buzzards Bay region, for 60,000 bathers contributes materially to solution of the overall public beach problem. We

FIG. 21. — *Partial Inventory, Municipally Operated Ocean Beaches.*
[T. L.=Town landing.]

TOWN.	Number of Public Beaches.	OPEN TO GENERAL PUBLIC.		
		Number.	Parking, Number of Cars.	Capacity, Number of Persons.
Sandwich	3	3	150	600
Barnstable	10	6	1,800	7,200
Yarmouth	8	8	1,200	4,800
Dennis	11	11	1,600	6,400
Brewster	8	8	350	1,410
Orleans	16 Including 10 T. L.	16	700	2,800
Eastham	13 Including 3 T. L.	13	900	3,600
Wellfleet	8	8	1,200	4,800
Truro	10 Including 3 T. L.	10	600	2,400
Provincetown	8 Small T. L.	8	0	0
Chatham	2	2	550	2,200
Harwich	6	6	300	1,400
Nashpee	1 Privately owned	1	300	1,200
Falmouth	8	6	850	3,400
Bourne	6	6	600	2,400
Wareham	4 1 Private operator	2	600	2,400
Marion	5	3	350	1,400
Mattapoisett	1	1	50	200
Fairhaven	1 West Island	1	300	1,200
New Bedford	2	2	1,000	4,000
Dartmouth	2 1 Private operator	2	600	2,400
Westport	2 1 T. L.	2	20	80
Fall River	0	0	-	0
Swansea	2 1 Private operator	-	20	80
Somerset	3 T. L.	-	20	80
Plymouth	7	-	500	2,000
	147	125	14,560	58,450

may be approaching the day when co-operative action between the State, the counties and the municipalities will work to the mutual advantage of all.

Under present Massachusetts law state beaches outside of the Metropolitan District Commission are the responsibility of the Division of Beaches of the Public Works Department. Since the

original purpose of chapter 471 was to study all resources owned by the Commonwealth, regardless of Department responsibility, this report considers the Commonwealth's overall needs rather than the relative merits of the assignment of administrative responsibility among the various executive departments and agencies.

DEVELOPMENT OF PROGRAM.

Previous sections of this report emphasize the immediate need for a stepped-up program to expand and improve the opportunity for public outdoor recreation on the state parks, forests and beaches. There is need also to provide for further expansion and development though acquisition of additional areas.

Under the following program, facilities will be brought up to the level of demand in five years — by 1962. This program will result in (1) improvement and expansion of existing recreation centers to provide additional capacity and greater efficiency of operation and maintenance; (2) acquisition and development of new areas to eliminate present deficiencies and accommodate future demand as it develops. The further acquisition of lands suitable for state park purposes is indispensable to adequate provision for public outdoor recreation. This program of acquisition is made even more imperative by the rapidity with which still-unspoiled areas are being converted to other uses. There is acute need of undelayed procurement of such areas even though their development may be deferred.

Postponement of acquisition of these areas will only add to the Department's difficulties. Numerous suitable areas are obtainable now. Shortly, this will not be the case.

The acquisition program should give consideration to areas with outstanding historic, scenic or scientific interest, the preservation of which will enhance the enjoyment and appreciation of present and future generations. Early acquisition will safeguard areas of this type, as well as other of the State's natural recreational resources, particularly along water frontages, against development by private and commercial interests.

Essential Principles.

The overall development of the program must be advanced in a manner consistent with acceptable principles of land use, taking into consideration such factors as relationship to other areas, char-

acter of terrain, distance from urban centers, means of transportation, co-ordination with other programs, multiple use and other related factors.

In developing the recommended program the following policy principles were used as guides and should be followed in putting it into effect: —

1. The recreation resources of the State's forests, parks and other public lands should be available for public use and enjoyment to the maximum extent consistent with the overall management of these lands for the greatest public good. To carry out this policy, co-operative action will be required between all state, federal, local, public and semi-public agencies concerned with any phase of natural resources, conservation or recreation.

2. Public recreation areas and facilities should be developed and maintained in sufficient number to accommodate public use in compliance with established standards of safety and sanitation and without overcrowding. Existing areas and facilities should be improved and expanded wherever this is feasible, and provision should be made for more economical operation and maintenance.

3. General public recreation values, such as hunting, fishing, hiking, riding and enjoyment of scenery should be recognized in all resource management and necessary steps should be taken to develop and enhance such opportunities for recreation wherever it is in the public interest to do so. Recreation areas should be protected and preserved as nearly as possible in their natural condition. They should be large enough to retain a wild or primitive character.

4. Public recreation facilities should be appropriate to the area and to the general environment. For example, each park presents its own individual planning problem. A plan satisfactory for one park is not likely to be usable on another. Certain standard facilities, however, are required in every park. Besides the essential facilities, there are numerous others the installation of which will depend upon the need, the characteristics of the area and the cost. In general, facilities for camping, picnicking, swimming, boating, fishing and hiking should be provided.

5. Special services and facilities, such as tents, cabins, hot showers, clothes checking at bathhouses, boat and canoe rentals, stables, snack bars, restaurants, lodges, ski tows, bicycle trails and even golf courses should be considered in locations where there is a de-

mand or need for them, and where they are appropriate to satisfactory use and enjoyment by the public. Service to the public is the sole purpose for which facilities are provided and operated. This can best be accomplished by insuring satisfactory, courteous service and neat and sanitary facilities in return for a reasonable fee.

Correlation with Other Programs.

Current and proposed programs of other agencies touching upon conservation, natural resources, recreation and vacation travel have important bearing on activities of the Department of Natural Resources. Preparation of this report included a study of these other programs for determination of their effects on and relationships with overall planning for public recreation. Close co-operation and full exchange of information between all interested agencies will be essential to effective overall planning, with elimination of waste and duplication of effort. Co-operative planning and administration should be based on recognition of the assigned responsibilities of the following departments, agencies and organizations:—

1. The Department of Commerce.

The official role of this Department is sponsorship of a superior economic and social climate in Massachusetts. Its activities include comprehensive technical research, co-ordinated planning and related development and promotion. All phases of its work are directed toward assurance of maximum economic and social benefits for the people who live and work in the Commonwealth.

The State's natural scenic beauty and recreational resources stand high among the attractions this Department features in its vacation travel promotion literature. Among its research projects in the recreation and vacation travel field is a recent study of the ocean beaches. Our study made extensive use of the findings in this Department's "Ocean Beaches — a Massachusetts Master Plan" report of 1954.

2. The Department of Public Works.

This Department, through its Division of Waterways, Beaches and Highways, is directly involved in conservation, recreation and vacation travel activities. The Division of Waterways has recently been authorized to make surveys for the purpose of identifying the

Great Ponds and insuring that the legally prescribed public access will be provided.

Of great importance will be the splendid ocean beaches completed or under construction by the Division of Public Beaches. The highway system being developed by the Department will make these beaches and the other recreation areas proposed by this report more accessible to the people.

3. The Metropolitan District Commission.

In the areas close to the Metropolitan Parks District, it is essential that close inter-agency contact be maintained to avoid duplication or overlapping of effort to provide proper distribution of recreational facilities for the densely populated metropolitan Boston area. Close collaboration will also assure that full advantage is taken of all the recreational possibilities of the water supply lands and reservoirs outside the Metropolitan Parks District.

4. The Bay Circuit Joint Board.

This board was organized to preserve a green belt around metropolitan Boston at a radius of approximately twenty miles. Acquisition by the Department of Natural Resources of areas recommended in this report, which lie within the Bay Circuit, would make a substantial contribution to the effectuation of the Bay Circuit program.

5. The Tourist Routes Joint Board.

The Departments of Commerce, Public Works and Natural Resources, acting as a joint board, have been authorized to select and establish a system of tourist routes throughout the State. These routes will utilize roads of low traffic density for the purpose of providing access to areas of historic, scenic, geographic and recreational interest. The proposed land acquisition program of the Department of Natural Resources will have profound effects on future planning of the tourist route system.

6. Municipalities.

City and town recreation areas differ from state parks in that usually they are intended to supply local needs only. Many municipalities own lands adaptable to recreational purposes on a larger

than local scale, yet not of state park caliber. The Department of Natural Resources might well act in an advisory capacity to the municipalities, and possibly provide financial aid for expansion and improvement of these areas. As supplements to the state park system, they would ease pressures on the state parks, particularly in the vicinity of the heavier concentrations of population. The need is most acute in these congested areas, and such co-operation would go far to insure preservation of needed open space for recreational use by future generations.

Another aspect of state-municipal co-operation which is of mutual advantage is the disposition of former water supply reservoirs no longer used for this purpose. In the past, financial necessity has forced numerous towns to increase their tax bases by permitting the subdivision of land adjacent to reservoirs no longer used for water supply. In the event that more of these water supply reservoirs are no longer needed, full consideration should be given to their recreation potentials. Where good potentials exist, acquisition by the State will be advisable to forestall diversion to uses of less public value.

There is growing acceptance of the idea that some types of recreational use are not incompatible with the simultaneous use of an area for domestic water supply purposes. This raises the question of the extent to which co-operation between the Department of Natural Resources and various water departments, boards and commissions could result in increased public benefits from water-supply reservoirs, natural and man-made, and the lands surrounding them. If such areas can be safely used for limited recreational purposes, making them available for such use is desirable.

Our recommendation that the State acquire lands surrounding some of the reservoirs and other domestic water impoundments is based on —

(a) Awareness of the need to make multi-purpose use, to the extent possible, of all water bodies in the State.

(b) Uncertainty that otherwise these water bodies will receive adequate protection against development and use contrary to the general public interest.

To the extent that the State acquires and administers lands surrounding the natural and man-made reservoirs, assurance will be had that they will yield maximum possible public benefits.

7. *The Trustees of Reservations.*

The Trustees of Reservations are concerned primarily with the preservation of areas of outstanding scenic, historic or other cultural interest, rather than provision for the more active forms of recreation. The Trustees are highly qualified to administer areas of this kind. At present, this organization owns and maintains 28 areas in the State.

Since 1891, the Trustees have turned eighteen large reservations over to the Commonwealth and other agencies for state park, wildlife sanctuary and other natural resource purposes. There is every reason to believe that the Trustees will continue to render a highly important service in the general field of natural resources. Limited financial resources frequently prevent full development of their plans. Cranes Beach in Ipswich serves as a specific example of cases in which direct financial aid from the State would enable the Trustees to provide still greater public benefits.

8. *The Fish and Wildlife Service.*

Within the United States Department of the Interior, this agency is concerned with the conservation of fish and wildlife. It administers the Parker River Wildlife Refuge in Newbury, the Monomoy Wildlife Refuge in Chatham, and Great Meadows National Wildlife Refuge in Concord. Presently negotiations are being conducted by the Department of Natural Resources for use, in co-operation with the Fish and Wildlife Service, of a portion of Plum Island as a salt water beach in such a way that it will not interfere with the wildlife aspect of that area. This is a fine example of inter-agency co-operation for public benefit.

9. *The United States Forest Service.*

Concerned with the conservation, protection and wise use of the country's forest resources in the public interest, this agency is responsible for the administration of the Hopkins Memorial Experimental Forest in the northwestern part of the Massachusetts. The recreation possibilities of this area should be investigated, with special reference to its potentials for hunting, fishing, hiking and picnicking.

10. The National Park Service.

Within its policy of preservation of areas of national significance, the National Park Service is engaged in study of the possibility of establishing a national park to include the Great Beach of outer Cape Cod, an area of spectacular scenery, sand dunes, extensive forests, and fine sandy beaches. Other areas in Massachusetts administered by this service are the Salem Maritime Historic Site and the Adams National Historic Site.

11. The Corps of Engineers.

There is reason to believe that close co-operation with this agency in planning for flood control dams will result in the creation of additional areas with recreation possibilities. It is the policy of the Corps of Engineers to provide recreation facilities, when possible, in connection with flood control projects. Appendix D lists seven flood control projects which possess potentialities for recreation.

12. Historical Societies.

Some of the local historical societies in Massachusetts are members of the Bay State Historical League and the Society for the Preservation of New England Antiquities. These organizations are making strenuous efforts to acquire, restore and maintain historic properties.

The public value of historic sites is great. The preservation and protection of these natural resources might in some cases be better assured by including them in state park properties. There is an obvious need for state and federal assistance in the preservation of the more valuable historic sites.

13. Adjoining States.

Interstate co-operation is often a necessity for effective management of the natural resources. Flood control studies by the Corps of Engineers and the New England-New York Inter-Agency Committee illustrate this interstate aspect.

The possibilities of the creation of bi-state and tri-state parks should receive serious consideration. Joint action by Massachusetts and Rhode Island would, for example, greatly increase the

value of Wallam Lake which adjoins the Douglas State Forest and extends into Rhode Island.

In the southwestern part of Massachusetts, Mount Everett State Reservation and Bash Bish State Park in Massachusetts, Taconic State Park in New York and Mount Riga State Park in Connecticut, could be united as a single park under a tri-state authority. In the northwestern corner of the State, consideration of another large tri-state area should be looked into for its possibilities for joint endeavor by Massachusetts, Vermont and New York.

Area Selection.

In selecting the proposed park sites, consideration was given to both conspicuous scenic aspects and recreation value. Scenic value is rare natural beauty which is sufficiently distinctive by itself to attract people from different parts of the State and Nation. Recreational value depends upon the influence of the topography, vegetation, streams, lakes and ocean on the things people like to do out of doors. Recreation possibilities are affected by accessibility and proximity to population centers. While secondary roads will provide the only direct access to many areas, their selection necessarily depends heavily on the existing and proposed major highway system. Areas proposed mainly for active types of recreation should be relatively easy to reach.

The selection of an area for any type of recreational use must be determined by a logical relating of needs, on the one hand, and cost on the other. In the case of an area selected because it possesses exceptional inspirational qualities "need" is the great imponderable. Whether or not acquisition is justified depends upon accurate appraisal of an area's whole social value which is not necessarily directly related to the number of people who visit it.

The field reconnaissance was done with all the foregoing principles and considerations in mind, together with a visualization of the principal elements of the ultimate design and the formulation of a rough estimate of what the cost might be.

Survey teams, working in liaison with representatives of the Department, examined all the Department's existing recreation areas to determine their adaptability to improvement and expansion. Questionnaires were sent out to supervisors of recreation areas

throughout the State requesting information on the nature and extent of existing facilities, capacity, attendance, estimates of requirements to meet current demands and possibilities for future expansion and improvements. In many instances the survey teams met in the field with supervisors and district foresters and investigated and discussed these possibilities with them. Other locations were examined or reconnoitered to ascertain their potentials. Conferences and meetings were held with many organizations concerned with natural resources, conservation, recreation and vacation travel, and their ideas and recommendations were recorded for future evaluation. Many individuals, thoroughly familiar with local conditions, co-operated by informing the survey teams of little known areas they should consider.

One of the most important considerations affecting decisions on area selection is the opportunity to create needed bodies of water by artificial impoundment. Advance planning will be essential to determination of all the characteristics of the lowland basins where impoundment appears feasible before active development is undertaken. It is important to ascertain, if possible, on the basis of accurate flow records, that the supply of water will be ample to provide for the proposed or desired development. Where a dam is to be built for impoundment of a new lake, there must be assurance that there will be no overflow on or damage to private property, or to proposed developments along its shores within the park, during periods of high water. If the lake is to be used for fishing it is important to know in advance how good a fishing lake it will be.

Abundant and safe drinking water and adequate sewage disposal are so basically necessary that specific planning for the development of any area should be deferred until they are definitely assured. The key to success in selection and utilization of any area lies in comprehensive advance planning which observes basic policies and safeguards natural or historic features. Good advance planning will also minimize the cost of operation, maintenance and protection. Like any plan based upon predictions which cannot be exact, development plans must be flexible and subject to modification as experience or changed conditions may indicate. The prospective cost of operation and maintenance is a factor inevitably affecting the selection and development of any recreation area.

Area Designation.

The term "area designation" relates to the allocation of the various sections of a park, forest, reservation or beach to the various recreation pursuits, single or in combination, for which people will visit it. The system as a whole serves a variety of purposes for which special provision is essential. By far the greater portion of the total area of a park or forest is ordinarily used only by hunters, hikers, climbers, skiers, nature lovers and similar recreationists. Some of the other public uses of state parks and forests are more or less mutually exclusive. Outboard boating, swimming and fishing are examples of incompatible recreational activities. To a lesser extent, but doubtless still important, camping and picnicking do not go well together. Campers, who engage space by the week, do not expect to be overrun by picnickers who come for the day. Swimmers should not have to be on the alert for outboards. High-speed boating can be detrimental to the enjoyment of lake fishing.

Nevertheless, all of these activities, and many others, have legitimate places in the overall recreational scheme. There is need of facilities for each of them in the system as a whole, even though few, if any, individual parks or forests will be able to offer everything. Variety of usability is related to topography, vegetation, subsurface conditions, water supply, accessibility and other natural or man-made conditions.

The purposes for which most people visit state parks or forests are best served by setting aside parts of them, usually relatively small parts, for intensive use. Frontages on water, where swimming is permitted, automatically involve concentrated use. Other activities, such as camping and picnicking, also involve concentrated land use. Without concentration it is impossible to provide adequate services and safeguards — safeguards to the users as well as to the property itself — at reasonable cost. It must be possible to provide adequate sanitation, water and other features essential to health, comfort and enjoyment. The area must also lend itself to effective operation and maintenance without excessive cost.

The purposes of areas devoted to concentrated use are better served if they are subdivided in such a way that unrelated activities are segregated. The enjoyment of camping is enhanced if the camping area is reasonably distant, for example, from the day-use

area, even more so if there is an intervening buffer area. This is also true of individual tent sites with relation to each other. The ideal is a compromise between privacy and essential economy in the use of the land and the provision of services. To the extent possible, it is desirable that individual tent sites be screened from each other by shrubs or low-limbed trees. A degree of seclusion is also desirable in trailer parks and should be provided as far as is practicable.

The term "scenic saturation" is commonly used to express the limit beyond which the use of an area should not go; that is, the maximum number of people to be allowed in the area at any one time. Control can be effected in two ways — by limiting the number of parking spaces and by keeping the number of entrances at the minimum, preferably to one. This device simplifies the job of checking visitors in and out, and the collecting of fees. It also helps to keep the cost of operation low.

Some areas which possess special scenic or other natural features will serve recreational purposes better if access to them is not too easy. Making it necessary to walk some distance to them will tend to protect them from use beyond the point of scenic saturation as well as to increase their value to the people who are willing to make the effort.

Escape from congestion is a major purpose of visitors to public outdoor recreation centers. It is highly desirable that these centers avoid the appearance of overcrowding, now and in the future. Whether an area lends itself readily to future expansion is an important consideration affecting decisions on area designation.

Adherence to sound principles of area designation will result in important benefits both to the public and the administrators of state parks, forests, reservations and beaches. A well laid-out area will give the public a larger measure of what it seeks than one to which insufficient thought has been given. It will be easier and cheaper to equip, operate and maintain. Many hazards to the State, such as undue deterioration of the site and damage by forest fires, will be reduced. There will be a corresponding reduction in hazards of life and limb to the visiting public. Effective area designation will bring added comforts, enjoyments and services to the public and savings to the State in costs of installation, operation and maintenance of recreational facilities.

Fig. 22 (map) presented to illustrate the principle involved in area designation, shows how a somewhat typical recreation area might be laid out. Since, of course, no two areas are ever alike, this illustration necessarily exhibits a single case.

Appendix A and Appendix B show the results, in detail, of application of the above-stated principles governing area selection and area designation. These appendices list and describe all the specific areas for which acquisition and development are recommended.

Type and Extent of Facilities.

The following general principles affect the installation of recreational facilities —

1. That the facility will not involve encroachment upon significant or rare scenic, historic, cultural or scientific aspects.
2. That development shall supplement rather than dominate the natural features of the area.
3. That no undue difficulties of maintenance, protection or operation will be introduced.

Swimming.

Swimming is one of the major desires of state park users. On well-designed, maintained and supervised fresh and salt water beaches, swimming areas will be clearly indicated. Attractive bath-houses, with enclosed toilet facilities should be provided to accommodate the designed capacity of the beach.

Picnicking.

Both individual and group picnic areas should be provided with some form of central shelter. Group picnic sites should be close to heavily populated areas where their use will justify their existence.

Boating.

In most state parks a simple boat-launching ramp and parking space for cars and trailers will suffice. For heavily populated regions, where the demand for boating and fishing is great, marinas should be provided at which boats and canoes can be rented. They should also provide docking and mooring spaces on a daily or term rental basis. There are numerous rivers and streams in Massachusetts, the boating and canoeing potentials of which will bear investigation.

DAY USE AREA

A HIGHLY CONCENTRATED AREA WITH A LARGE, OPEN SPACE VISITORS SHOULD BE EXPANDABLE FOR PEAK SUMMER USE, BUT RETAIN ITS NATURALNESS FOR SMALL VOLUME, MIDWINTER TRAFFIC.

ACCESSIBILITY IS THE KEY DESIGN OF THIS AREA, REQUIRING PROXIMITY OF PARKING, PICNICKING AND BATHING FACILITIES. CAR TRAFFIC SHOULD NOT INTERFERE WITH PEDESTRIAN TRAVEL, THEREFORE ROADS ARE BUILT BACK FROM THE WATER. CONTROL OF ADMISSION CAN BE ADMINISTERED MOST SATISFACTORILY FROM A SINGLE POINT. MAINTENANCE AREAS SHOULD BE OUT OF SIGHT, BUT APPROPRIATELY LOCATED.

BUNTING IN A DAY USE AREA IS DESIRABLE WHERE THE SIZE OF THE LAKE PERMITS. CANOE AND ROWBOAT RENTAL WITH AN AREA FOR LAUNCHING PRIVATE BOATS SHOULD BE CONSIDERED.

PICNIC FACILITIES SHOULD BE TREATED NATURALLY, HOWEVER GROUP PICNICS ARE HANDLED BEST IN DESIGNATED SURFACED AREAS, PREFERABLY ADJACENT TO SHORES.



OVERNIGHT USE AREA

DESIGN OF THIS AREA PRIMARILY DEPENDENT ON NUMBER AND TYPE OF SITES DESIRED, TOPOGRAPHY AND NATURAL FEATURES. IN THIS PRESENTATION, EXISTING TOPOGRAPHY DICTATES THE CHOICE OF ROAD ALIGNMENT, AND CONSEQUENTLY THE LOCATION OF DESIRABLE TRAILER, TENTING AND CABIN SITES, ENDOING STREAMS, PROXIMITY TO WATER, AND SCenic OVERLOOKS, ALL WITHIN ECONOMIC CONSIDERATIONS.

SURFACED AREAS ARE REQUIRED FOR LAUNCHING SMALL BOATS AND MANEUVERING THEIR RESPECTIVE TRAILERS. AN ANCHORAGE FOR THESE BOATS SHOULD BE AVAILABLE.

OPEN PLAY AREAS ARE DESIRED FEATURES FOR ACTIVE RECREATION AND PROVIDE AN AESTHETIC FEELING IN PASSIVE RECREATION.

SEGREGATION FROM CONCENTRATED DAY USE AREAS IS AN IMPORTANT CONSIDERATION. SEGREGATION WITHIN THE OVERNIGHT AREA IS ALSO DESIRABLE TO PROVIDE A COMMUNITY FEELING AND SATISFY THE CREATIVE NATURE OF MAN.

A BASIC DESIGN

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STATE PARK

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Camping.

Tenting, both individual and group, should be provided in selected areas adaptable to this form of recreation. Group camps should be adapted to use for educational purposes, as well as to the needs of various types of youth organizations.

There will be need for opportunities for truly primitive camping in some of the more remote areas. Provision of safe fireplaces is indispensable to this type of use. Whether shelters will be built depends on the prevailing special circumstances.

Where they will supplement facilities provided by private enterprise, rental cabins can contribute effectively to the attractiveness of a recreation area. Cabins should, in general, be of simple design combining the essentials of reasonably comfortable outdoor living with moderate cost of upkeep and services.

Trailer sites should have provision for electricity and water. Centrally located toilet facilities can serve several trailers. In heavily utilized camping areas, centrally located combination showers, laundry and a recreation building should be provided.

Because of the limited number of spaces available, many people are turned away from the camping areas every season. Until such time as the expanded program meets the demand more adequately, consideration should be given to a maximum rental period of one week instead of two as at present.

The installation of bridle trails will be justified at some locations. Other states have, however, found that the operation of stables in connection with recreation centers is impracticable.

Open areas will provide opportunity for the playing of various games and for appreciation of the scenic and inspirational values of the park. Scenic drives should take advantage of outstanding scenic vistas which visitors might otherwise not see. They should, however, be omitted if they would conflict with the natural characteristics of the area.

Fishing does not intrude on other recreational activities, and should be permitted in all park areas. It should receive protection against interference from outboard boating. Hunting should be allowed in the parks where it will not conflict with other forms of recreation. Coming as it does, in or after mid-autumn, the hunting season overlaps the other recreation seasons to a minor extent. Consideration might, however, be given to the prohibition of hunt-

ing in certain areas set aside for the observation of undisturbed wildlife.

Providing facilities for skiing on state parks and reservations is standard practice throughout the northeast. Where snow conditions, topography and accessibility are sufficiently favorable, the establishment of new ski areas, possibly with lifts or tows and other accommodations, may be advisable.

Golf continues to enjoy great popularity. Whether or not serious consideration of this sport is justified in connection with state park development is somewhat uncertain. There are public golf courses in some of the state parks in the Nation. Accurate appraisal of public demand will provide guidance to decisions with respect to this sport.

Public outdoor recreation centers can be fully adequate to the need only when they include at least some of a variety of structural facilities. These include bathhouses, boat houses, launching ramps, docks, diving towers and floats, recreation buildings, picnic shelters, administration buildings and others. Some centers will have to have all of the various types of structures, possibly even two or more of some of them.

Structures will best serve their purposes if they are simple in design and harmonious with the environment. The use of native materials, to the extent practicable, favors a harmonious effect. Structures should be sturdily constructed and able to withstand careless use.

Picnic tables, benches and fireplaces incur lower maintenance costs if they are heavily constructed. Cast concrete tables and benches are standard equipment in some state parks. Esthetic aspects are, in the minds of many people, better served by wooden tables and benches.

Fig. 23 (sketches) shows suggestions for the architectural features of structures in the state park recreation centers. Other architectural forms will, of course, be equally acceptable as long as they do not involve departure from basic principles.

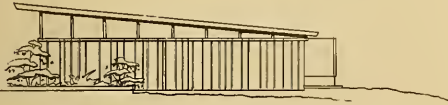
Estimates of Cost.

The results of this investigation and analysis of present and future demands on the State's outdoor recreation facilities, both by residents and vacation travelers, make it clearly apparent that the

Figure 23

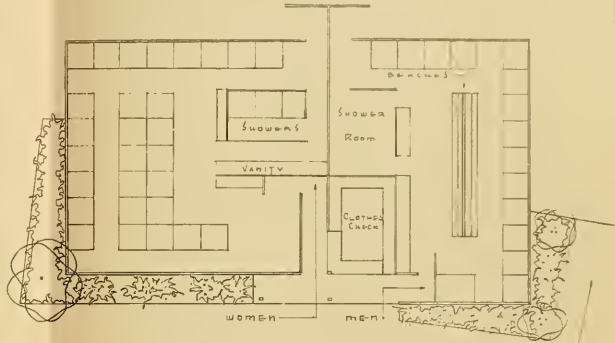


ELEVATION FROM PARKING AREA



ELEVATION FROM BEACH

BATH HOUSE

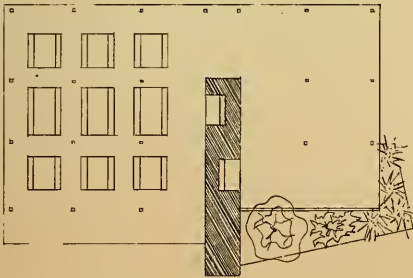


PLAN VIEW

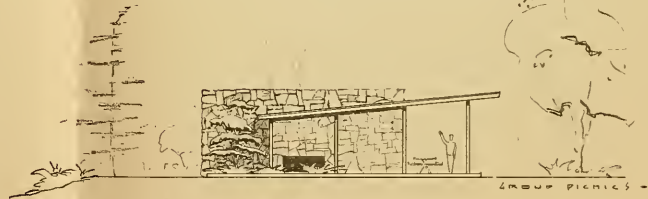


ELEVATION FROM LAKE

PICNIC SHELTER



PLAN VIEW



ELEVATION FROM BEACH

PROPOSED DESIGN for PARK STRUCTURES

SCALE 0' 10' 20'

PRELIMINARY SKETCHES

NOTES

PARK STRUCTURES MAY BE OF NATIVE MATERIAL, RANDOM WOOD, SPUN IN A NATURAL TREATED FINISH OR PAINTED WITH COLORS COMPLEMENTING NATURE.

ALL STRUCTURES SHOULD HAVE A FEELING OF OPENNESS NOT PROVIDE PROTECTION FROM UNDESIRABLE ELEMENTS. PORTIONS OF BATH HOUSE ROOF MAY BE LEFT OPEN FOR LIGHT. PICNIC SHELTER MAY HAVE MOVABLE LIGHTWEIGHT PANELS THAT CAN BE EASILY SLIDED BETWEEN SUPPORT COLUMNS TO PROVIDE PROTECTION FROM WIND, DRIVEN RAIN, EXCESSIVE SUN, OR CREATE A SENSE OF PRIVACY WHEN DESIRED.

PLANTING SHOULD CONSIST OF NATIVE HARDY MATERIAL REQUIRING A MINIMUM OF MAINTENANCE. FOUNDATIONS ARE RECOMMENDED TO BE CONCRETE FOR PERMANENCE AND LOW COST UPGRADE. OPEN AREAS UNDER BATH HOUSE ROOF MAY BE SCREENED TO VANDALISM PRESENTS A PROBLEM. ARCHITECTURAL TREATMENT FOR BUILDINGS SHOULD HAVE FLEXIBILITY IN CHARACTER TO MEET THE NEEDS OF VARIOUS SITES AND ENVIRONMENTAL SITUATIONS THROUGHOUT THE STATE.

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most acutely needed action is immediate acquisition of additional lands adaptable to recreation purposes. There is special need for lake and ocean frontages near heavily populated areas.

There is obvious need for immediate provision of substantially increased opportunity for all types of public outdoor recreation, not only to satisfy present demands but to insure adequacy in the future. It is proposed that a program be undertaken by which the facilities will catch up with demand in five years — by 1962. To achieve this, a program of land acquisition is recommended which takes into consideration proximity to large population centers, the recreation potential of each specific area and the danger of diversion to other uses. As the demand grows after 1962, there will be a need for corresponding expansion of the accommodations. This program, therefore, covers the period between the present and the year 1977.

The sequence of development of recreational facilities required to catch up with and stay abreast of demand, must of necessity be flexible to be realistic. In general, first consideration should be given to areas which are already parts of the system, which lie close to large population centers and which lend themselves readily to increases in capacity at reasonable cost. It is believed that a start on this phase of the program in 1957 will enable the Department to place substantial additional facilities in operation early in the 1958 season. In addition, a pilot project for the orderly development of a particular state park or forest will serve a highly useful purpose. This would be a demonstration facility, public reaction to which would indicate the direction and scope of the balance of the development program.

Fig. 24, page 76, shows the estimated cost of the proposed twenty-year public outdoor recreation program by priorities for acquisition and development of state parks and beaches. Fig. 25, page 77, shows the breakdown of this estimated cost between the first five and the last fifteen years.

ADMINISTRATION.

Administrative districts proposed in the "Preliminary Report on an Inventory and Plan for Development of the Natural Resources of the Commonwealth," subdivide the state into regions based on geographic characteristics. These natural geographic regions not

only cut across town and county lines, but state lines as well. The Connecticut Valley, for example, which lies partly in Vermont and partly in New Hampshire, goes through central Massachusetts and extends into Connecticut. This major drainage basin is a natural geographic unit and presents its own special problems. The Berkshire Hills, a southward extension of the Green Mountains of Vermont, form another natural geographic region.

FIG. 24. — *Estimated Cost of Acquisition and Development Program, 1958-1977.*

PARKS AND OCEAN BEACHES.

[The following figures do not include debt service charges.]

Acquisition.

PRIORITY.	Acres of Park or Miles of Beach.	Cost.	
A-I (1958-1959)			
Parks	65,000 acres	\$20,150,000	
Beaches	13 miles	2,265,000	
A-II (1960-1962)			
Parks	31,000 acres	6,400,000	
Beaches	8 miles	610,000	
A-III (1963-1977)			
Parks	125,000 acres	6,150,000	
Beaches	1 mile	150,000	
			\$35,725,000

Development.

PRIORITY.	Capacity, (Number of Persons Accommodated). ¹	Cost.	
D-I (1958-1960)			
Parks	22,500	\$9,000,000	
Beaches	12,000	1,850,000	
D-II (1961-1962)			
Parks	37,500	15,000,000	
Beaches	12,000	1,710,000	
D-III (1963-1977)			
Parks	57,000	22,800,000	
Beaches	38,200	9,150,000	
			\$59,510,000
Total estimated cost	- - - - -	- - - - -	\$95,235,000

¹ At one time.

Administrative purposes, at the state department level, are better served by making use of natural regional subdivisions rather than attempting to handle the whole state as a unit. The "Suasco Study" which deals with problems of flood control, land use and soil conservation in the valleys of the Sudbury, Assabet and Concord Rivers provides an excellent example of the regional approach. It is easier to stimulate local interest and activity if the frame of reference is a region rather than the State as a whole.

To further the implementation of the program suggested in this report, it is proposed that the State be divided into six regions, as follows: —

FIG. 25. — *Breakdown of Estimated Costs.*

FIRST FIVE YEARS (1958-1962).

	ACQUISITION FOR FUTURE DEVELOPMENT.		DEVELOPMENT ON AREAS NOW OWNED		DEVELOPMENT ON NEW AREAS.		Total Cost.
	Parks.	Beaches.	Parks.	Beaches.	Parks.	Beaches.	
1958 . . .	\$10,000,000	\$1,000,000	\$2,000,000	-	-	\$500,000	\$13,500,000
1959 . . .	10,000,000	1,265,000	2,000,000	-	-	500,000	13,765,000
1960 . . .	2,200,000	200,000	2,250,000	-	\$2,750,000	850,000	8,250,000
1961 . . .	2,200,000	200,000	-	-	7,000,000	850,000	10,250,000
1962 . . .	2,150,000	210,000	-	-	8,000,000	860,000	11,220,000
Five-year total	-	-	-	-	-	-	\$56,985,000

LAST FIFTEEN YEARS (1963-1977).

	ACQUISITION.		DEVELOPMENT.		Total.
	Parks.	Beaches.	Parks.	Beaches.	
Average annual cost	\$410,000	\$10,000	\$1,520,000	\$610,000	\$2,550,000
Fifteen-year total	-	-	-	-	\$38,250,000
Twenty-year total	-	-	-	-	\$95,235,000

1. The Berkshire Hills, including the foothills.
2. The Connecticut Valley, which embraces the Pioneer Valley.
3. The Massachusetts Highland area (Worcester County).
4. The Assabet, Sudbury and Concord River Basins, the north shore of Massachusetts Bay and the eastern portion of the Merrimack River Basin.

5. The southeastern section, covering the Taunton River Basin, the upper reaches of the Charles and Neponset River Basins and the south shore of Massachusetts Bay.
6. The Cape Cod area, Martha's Vineyard and Nantucket.
7. The Metropolitan District covering the Boston Metropolitan area. Since the Metropolitan District Commission is responsible for administration of state parks, reservations and beaches in this region, this region does not fall within the scope of this report.

Fig. 26 (map) shows the suggested regions in map form.

Personnel.

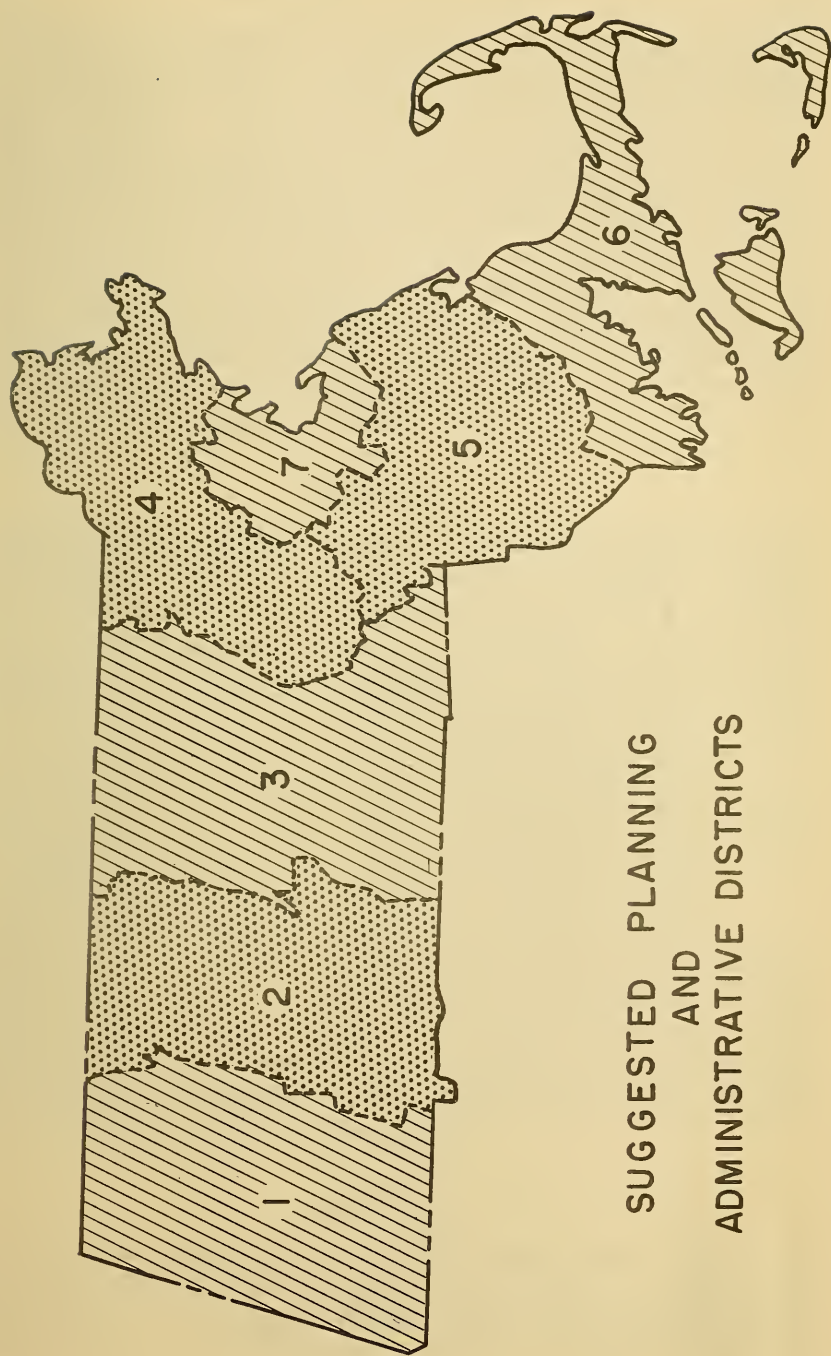
To handle a program of the magnitude proposed and to provide for proper operation and maintenance in the years to come, the Department will require the professional services of many competent planners, architects, landscape architects and engineers. Somewhat less recognized is the need of the services of historians, archaeologists, foresters, wildlife technicians, geologists, ichthyologists, botanists and others whose knowledge is essential to proper development of areas for their ultimate best use.

Once the program is under way, there should be close liaison between the planning and maintenance personnel. Consultation between planners and the personnel in the field, who are making the system work, should help to give both groups the necessary insight for smooth operation.

The size range of most of the recommended scenic and recreation areas is from 400 to 2,000 acres. State parks of this caliber will generally require two full-time employees, a supervisor and a helper, plus a staff of seasonal employees varying in size according to the number of visitors and the scope of the recreational development.

The park staff should be aware of the desires and interests of the communities around the park and provide for them to the extent possible. It can be expected that use will continue to reach peaks on week-ends. All possible encouragement of use during the remainder of the week is desirable. As working hours shorten, vacations become longer and more vacationists come from elsewhere, such an effort will grow in importance. A competent and well-trained park staff, interested in and responsive to the desires of the public, can do much to encourage use of the park and thus help to meet the public's needs.

Figure 26



Facilities are provided for the sole purpose of serving the public. The supervisor of a park is responsible for satisfactory and courteous service, collection of the statutory fees and the maintenance of the facilities in a neat, orderly and sanitary condition.

Public health and safety are among the most important responsibilities of the park administrators. A serious accident, or a rumor that a park is not clean and healthful can damage public confidence in the whole state park system. Good planning and development of roads, trails, beaches, structures and other facilities will go far to eliminate hazards and unsanitary conditions, but, in the final analysis, the responsibility for the protection of the park visitors rests with the operation and maintenance staff.

Maintenance.

Adoption of the suggested regional system will facilitate the over-all program of planning and administering recreational facilities. Strategically located central maintenance depots, with specialized personnel and equipment, can provide effective and economical maintenance and repair for several parks. Under such an arrangement, local park supervisors and their personnel would be better able to concentrate their attention on their primary purpose — to assure that the park is properly policed and the recreation activities properly supervised. Future needs, as indicated by the proposed long-range program, will have important bearing on the selection of locations for centralized maintenance and repair depots.

At the present time, the Department has two forestry prison camps, one in the Myles Standish State Forest and the other in Monroe State Forest. A third has been authorized for October Mountain State Forest. Consideration might well be given to locating a fourth one in Brimfield State Forest where the Department has much special equipment which could fit very well into the program for centralized maintenance depots.

Operation.

In most state parks, the park staff handles rental of cabins and tent and trailer sites and operates the beaches and bathhouses. The operation of refreshment stands, lodges and dining facilities by concessionaires has usually been found to be more satisfactory.

Regardless of whether the direct or concessionaire type of operation is adopted, the fixed facilities, buildings, permanent contents, water supply and sewage disposal systems should be publicly owned. Otherwise difficulties may be encountered when a change of management occurs.

Most of the proposed parks will provide facilities for recreation in and on water among their main attractions as well as picnic areas and camp grounds. Revenue for these parks should, in most cases, be derived from admission fees charged per person, per car, or both. In most instances, admission fees will provide the major portion of the revenue received. Other forms of revenue will result from admissions to boat and canoe rentals and the renting of camp grounds and cabins. Refreshment stand concessions usually yield little revenue, but serve to attract people to an area.

Prices charged for admissions and rentals must be high enough to keep the State free from accusations of unfair competition with private enterprise. They must, on the other hand, be low enough to fit the pocketbooks of the prospective users. The demand for cabin rentals, for example, may come from people who could not afford to go to a motel or hotel, or would not care to if they could. Cabins on state parks do not necessarily compete with privately operated accommodations because they attract a different clientele. It is believed that most of the recommended areas will be 50 to 100 per cent self-sustaining as far as operation is concerned, if they are efficiently designed and properly maintained and operated.

This revenue-producing aspect needs further study for determination of the extent to which self-support is possible. Each area needs investigation to determine the optimum of efficient operation. In some of the areas now in operation, better control of access to the active recreation areas will reduce the number of attendants needed for the collection of fees in the parking areas. The attractiveness of other areas can be increased by the employment of additional maintenance personnel.

According to "State Park Statistics" for 1955, the average cost per state park visitor in the United States, in 1955, was 30 cents; 11 cents for capital improvements and 19 cents for operation and maintenance. At 19 cents per visitor, the cost to Massachusetts of operation and maintenance in 1956 would have been \$164,415. According to the Massachusetts Bureau of Recreation's annual report for the 1956 fiscal year, \$468,058.28 was appropriated and

\$445,655.91 spent for operation and maintenance. This apparent high cost in Massachusetts is evidently at least partially due to the somewhat unique interrelationship between state parks and state forests in this State. Some of the expense charged to recreation may, in fact, have been more properly chargeable to other forestry activities.

Rounding the average cost per visitor to 20 cents, the theoretical cost of operating and maintaining the existing and proposed parks, providing for a yearly attendance of 2.5 million people, will, in 1962, be \$500,000. This is not much greater than the apparent present cost of these items under the current accounting system.

Furthermore, these figures do not express net costs to the Commonwealth. Revenue from fees charged the public have increased from about \$72,000 in fiscal year 1951 to more than \$151,000 in fiscal year 1956. The net cost to the State was about \$200,000 in 1951 and a little less than \$295,000 in 1956.

Information and Education.

The publicity program of the Department of Natural Resources has been much more effective than would normally be expected in view of the severe insufficiency of directly allotted funds under which it operates. These funds provide only for the salaries of one assistant to the Commissioner and a stenographer. Funds provided by the Division of Forests and Parks and the State Department of Commerce pay the cost of publishing a parks booklet each year. The fact that the demand for this booklet always exceeds the supply is evidence of continuing public interest.

The publicity office, through news releases and feature stories in the newspapers plus radio plugs throughout the vacation season, has been able to kindle public interest in outdoor recreation at the state parks, forests and reservations. However, lack of photographic equipment and personnel to take pictures in all parts of the Commonwealth, which could be used to publicize the State's recreation program, have hindered its progress. The old adage that "one picture is better than 10,000 words" still holds true.

Other States are demonstrating that a well-conducted publicity program has a strong magnetic effect on tourists, and are building up their vacation travel business by liberal use of this device. The allocation of sufficient funds to this activity, so that full advantage

might be taken of such media as newspapers, national magazines and television, would bring lush financial returns to Massachusetts.

The capable and experienced personnel of the publicity office of the Department of Natural Resources are doing an excellent job, considering the circumstances under which they are obliged to carry on. Provision of adequate funds would result immediately in greater effectiveness of their efforts.

At the present time a group conservation camp is operated in Beartown State Forest under a co-operative arrangement between Wildlife Conservation, Incorporated, and the State. This provides a two weeks' course in natural resource conservation for boys between twelve and eighteen years of age. Most of the boys who attend are sponsored by sportsmen's clubs.

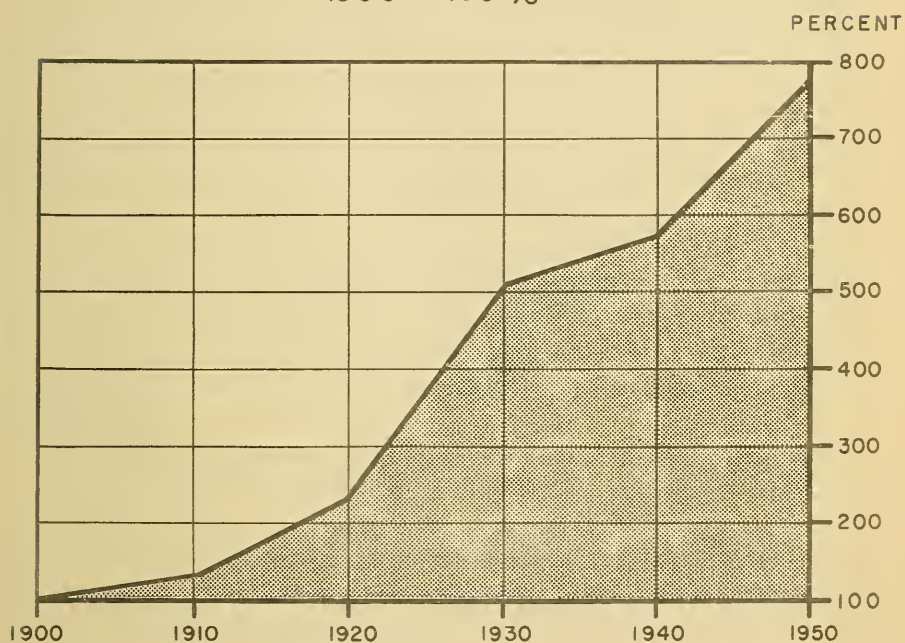
There will be opportunity for another such camp in the proposed park at Spectacle and Laurence ponds in Sandwich, which is within easy reach of Woods Hole where the Marine Biological Laboratory is located. These camps might well provide for the education of adults as well as youth in the conservation and preservation of our natural resources. More widespread and accurate understanding of the relationship between the people and the natural resources would have highly beneficial results.

"Massachusetts Wildlife" published by the Massachusetts Division of Fisheries and Game, helps to create public interest and understanding of wildlife conservation as well as conservation in general. Such publications are a step in the right direction, but the need for further emphasis on the importance of conservation of all of the natural resources is plain. The "New York State Conservationist" is an attractive periodical which might be considered as a prototype. There is a charge for this publication but the number of subscribers increases each year.

If, through a co-operative arrangement with other state agencies, the circulation of "Massachusetts Wildlife" could be increased, the public would benefit from better education in conservation and fuller appreciation of our natural resources.

Interpretive services, such as trailside exhibits and printed pamphlets, are excellent means of informing the public on an area's history, physiographic features and plant and animal life. Supplying this type of information in individual parks, pointing out the outstanding features of the park, would increase its attractiveness to the public and provide educational benefits as well.

Figure 27
INDEX OF LAND VALUATION
CAPE REGION
1900 = 100 %



Source: Massachusetts Department of Commerce

EFFECTUATION OF PROGRAM.

Our analysis reveals a disquieting fact. Present accommodations for public outdoor recreation are inadequate even to the existing demand. The deficiency is rapidly becoming more acute. Demand will increase each year for as far into the future as it is possible to look. It may still be possible to forestall the arrival of an intolerable situation under which people are denied access to ocean, lake and river shorefronts.

Of one thing we can, however, be certain. Unless the State takes prompt action to acquire, or otherwise reserve, a sufficiency of suitable sites, it will soon be too late. Within a few years most of the presently available properties will have been taken and those remaining will carry higher price tags. Fig. 27 (chart) shows the effect that the demand for recreation and vacation properties has had on land valuation in the Cape Cod region. The eightfold rise there, since 1900, is greater than that in any of the other planning regions in the State. Values are still rising sharply with an increase of nearly 40 per cent between 1940 and 1950. It is evident that these valuation figures are typical of all locations in the Commonwealth where recreation and vacationing are the dominant price determinants.

The interim report recommended the earliest possible acquisition of eleven areas in the Berkshire Hills region and four in the Cape Cod region. It also recommended the inclusion of seven areas in the Berkshire region in the early planning of the long-range recreation program. These areas were listed because, while acquisition is not immediately urgent, they influence the ultimate development of the more urgently needed areas.

How can the State best go about acquiring additional lands and otherwise provide assurance that they will be administered for the maximum benefit of the public? "By purchase, gift or otherwise" is a familiar legislative phrase.

Negotiated purchase, the method currently employed by the Department, often leads to long drawn-out delays. There have been cases where the proper amount of land acquisition for a new or expanded state park required the assembly of several individually owned tracts. An unco-operative attitude on the part of one owner has, in one case, resulted in the complete abandonment of the proposed project.

This situation could be corrected by taking by eminent domain. But the Department lacks the power to take by eminent domain for park purposes. To correct this unwholesome condition, suggested legislation granting to the Department the power of eminent domain for park purposes is introduced with this report.

Acquisition by gift is, of course, a method to be most earnestly desired, whether through the generosity of public-spirited citizens or through the efforts of organizations such as the Trustees of Reservations.

All property procurement programs, public and private, face the age-old business principle of "what the traffic will bear." If an owner, or a prospective speculator, knows that somebody really wants a piece of property, he loads his asking price. While it can be hoped that there will be a minimum of this sort of trouble, it will nevertheless be advisable to invoke all possible safeguards against it. What this means in terms of general policy and specific procedure is a moot question. The course must be steered with full awareness of this danger coupled with firm determination that the State will not pay exorbitant prices.

Another general principle affecting the acquisition program is that it is not possible to please everybody. People want super-highways as long as they do not come close to them. They want state parks but preferably not in their towns or immediate neighborhoods. These objections are seldom effective in the face of statewide needs, but they can be troublesome. The recommendations in this report are made, without exception, on the basis of the relationship between the statewide need and the naturally imposed geographic limitations. Sites are desirable because they possess the essential ingredients and are reasonably well (not always perfectly) located in relation to the geographic distribution of demand. The sites recommended for acquisition have been selected on the assumption that people will prefer to travel somewhat farther to reach really good places rather than have mediocre facilities closer to their homes. The State's public outdoor recreation program will suffer unless local preferences, prejudices and desires are subordinated to a co-operative spirit under which the cities, towns and local people work with the State to provide a well-balanced integrated program for Massachusetts.

There are a number of specific devices resort to which may, in some cases, ease the problem of the acquisition of land by the State. It may be desirable and even necessary, in some cases merely to "put the property on ice" by one means or another.

Procurement by the State would not always necessarily mean the immediate loss of the property by its owner. It may prove advisable in some cases to allow the seller to remain on the property as a life tenant under some mutually agreeable arrangement. Meanwhile the owner can continue to occupy and make use of the land under such restriction as will insure the preservation of the features which make the property desirable to the State. Such restrictions would apply, for example, to the cutting of timber, removal of loam or gravel, inappropriate development or other action detrimental to the scenic or recreational character of the land. Although the taking of options in the State has apparently not been a common practice, there may be merit in considering such procedure under certain circumstances.

In other cases the disposal or exchange of land already owned may serve a useful purpose. Resort to this device could be had, of course, only in respect to land no longer needed by the State, and to lands which could clearly serve a higher public use in some other type of ownership.

Ocean Beach Recreation Occupies a Unique Position.

The effectuation of the ocean beach program will require an approach differing somewhat from the approach to the other phases of the recreation plan. There is as yet no clear-cut definition of the various intentions and responsibilities of the official agencies involved, — federal, state, county and municipal. The essential need is an early meeting of the minds among these agencies.

Under the terms of chapter 591 of the Acts of 1956, several months remain in which to continue related investigations and studies of the natural resources as directed by chapter 471 of the Acts of 1955. There is ample time, between now and the end of 1957, for discussion with officials involved in the beach problem, and for further viewing of proposed sites under normal summertime conditions. The result could be a thoroughly definitive, comprehensive long-range plan for ocean beach development.

Priorities.

Fulfillment of the purposes of this report requires the submission of specific suggestions whereby the Commonwealth's present and prospective future insufficiency of opportunity for public outdoor recreation can be corrected. Formulation of these suggestions is dependent, among other things, upon determination of the relationship between these needs and the possibility of meeting them.

This study provides unmistakable evidence of the impossibility of providing adequate opportunity for public recreation on the lands now in state ownership. There is no escape from the necessity that the State acquire additional lands. Determination of the extent to which additional lands, which comply with essential standards, are available thus becomes a major phase of the study.

Basic policy and the principles governing area selection are fundamental to this land acquisition phase. With these fundamentals in mind, one of the first phases of the study took the form of field reconnaissance, the purpose of which was complete analysis of the vacation potentials of all the existing recreation areas, and state-wide investigation of every other property in the state which appeared, on the basis of preliminary surveys, to have a promising recreational potential.

Some of these properties, when closely examined, did not appear to comply with essential standards. Many did, however, and are recommended for acquisition. The effectuation of a plan to insure provision of needed public outdoor recreation facilities, present and future, also involves the expansion of existing recreation areas and the installation of permanent improvements. Since it would be neither possible nor desirable to undertake the whole acquisition and development program at once, an order of priority has been set up to serve as a guide for spreading it over the coming twenty-year period. The following section shows how the order of priority has been established.

Order of Priority.

The studies on which this report is based show plainly that the immediately essential need is for acquisition of lands adaptable to recreation purposes; particularly lake and ocean frontages within easy reach of large population centers. Besides eliminating current

deficiencies, the acquisition program must forge ahead now — to allay the possibility of losing opportunities for expansion when future demand creates the need for additional facilities. Unless it is undertaken at once, the opportunity in many cases will be lost. A program is outlined by which facilities for recreation will catch up with demand in five years — by 1962, and expand in proportion to demand thereafter. To achieve this, a sequence of land acquisition is recommended in which consideration is given to (1) proximity to large population centers, (2) recreation potential, (3) location with respect to the highway system, and (4) danger of diversion to other uses.

Priority of Acquisition.

A-I. Immediate acquisition within two years — prior to December 31, 1959. These are lands which possess outstanding recreational potentials and which are the most subject to early private and commercial development.

A-II. Acquisition within five years — prior to December 31, 1962. These areas are, in general, less critical than those in Priority A-I, but will be needed to provide for increasing demand during the coming twenty years.

A-III. Long-range acquisition between 1962 and 1977 to include —

(a) Lands with unspoiled natural beauty which should be preserved as cultural resources.

(b) Lands for preservation of large undeveloped areas of a wild or primitive nature to provide for hunting and forest management purposes.

(c) Lands presently being used for local water supply purposes which may become available for recreational purposes.

(d) Watershed protection lands and buffer zones in the vicinity of state park developments.

Priority of Development.

The sequence of development of recreational facilities required to catch up with and stay abreast of demand in coming years must, of necessity, be flexible to be realistic. In general, areas now owned by the State which lie close to large population centers and which are readily adaptable to rapid increase in capacity at low cost should be considered first.

D-I. Immediate development within three years — prior to December 31, 1960. Most of this can be accomplished on lands now owned. The extent to which newly acquired lands will be developed immediately will depend on the prevailing circumstances.

D-II. Development within five years — prior to December 31, 1962. Most of the development recommended here will be on newly acquired areas. Some of these are adjacent to areas now owned, expansion of which will be possible only if more land or water frontage is acquired. There are cases in which such expansion is needed to relieve overcrowding.

D-III. Long-range development between 1962 and 1977. Generally, this development will take place on areas acquired during the first five years and held in "cold storage" until there is a need to construct facilities.

Details of the Proposed Program.

The map "Public Outdoor Recreation — Master Plan" in the pocket on the inside of the back cover shows the locations of the state parks, forests, reservations and beaches now owned by the Commonwealth and administered by various state departments, agencies and commissions. It also shows, by a symbol, all of the existing improved recreation areas with the exception of those under the administration of the Metropolitan District Commission.

In addition, this map shows the locations of all areas recommended for future acquisition, immediate and long-range, their relationship to lands now owned as well as to each other, and their statewide distribution. Symbols also indicate the locations of existing areas on which further expansion and improvement are proposed, either on land now owned or to be acquired, together with wholly new recreation areas. The numerical designations provide for identification by reference to the "Order of Acquisition and Development" presented in Appendix A, and to Appendix B, "Detailed Descriptions of Areas Proposed for Acquisition and Development."

Fig. 28 (map), "Distribution of Existing and Proposed Recreation Areas in Relation to Existing and Proposed Major Highways," shows that, in general, it will be possible to reach any recreation area without travelling any great distance on secondary roads. Figs. 28a and 28b (charts) show the relationships between present and future public recreation capacities and driving times from the

Figure 28

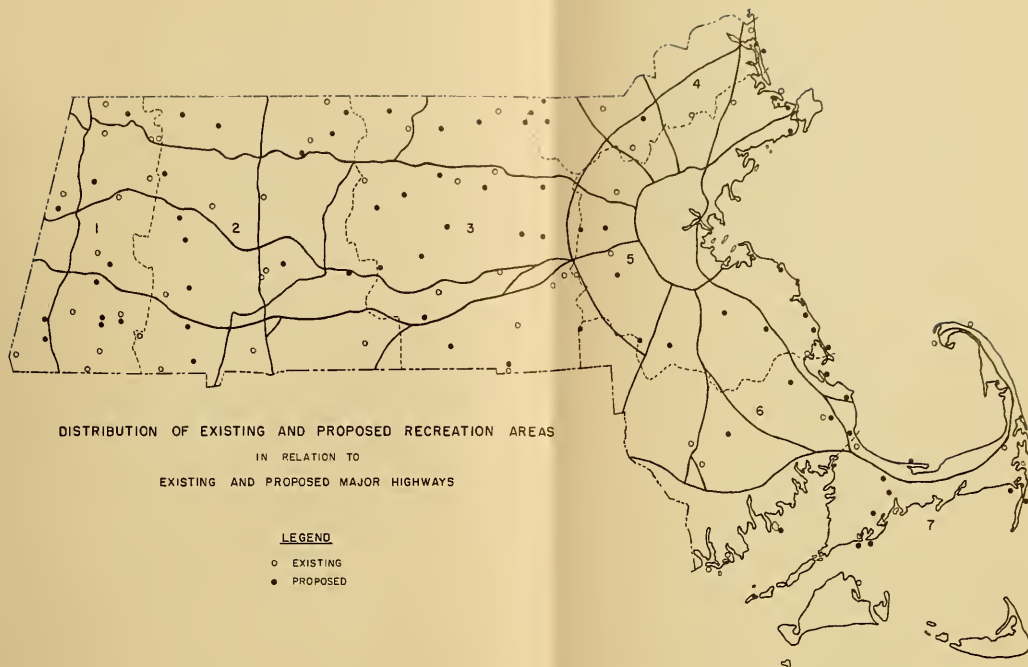


Figure 28a

PRESENT AND PROPOSED
CAPACITY OF RECREATION AREA FACILITIES IN RELATION TO
DRIVING TIME FROM MAJOR URBAN AREAS OF MASSACHUSETTS

(Capacity is the number of people that can be comfortably accommodated at one time)

AREA	CAPACITY					
	Within 1/2 Hour		Within 1 Hour		Within 2 Hours	
	1957	1977	1957	1977	1957	1977
BOSTON						
Parks	22,000	45,000	34,000	92,000	45,500	132,500
Ocean Beaches *	300,000	304,000	343,000	374,000	385,000	447,000
LOWELL-LAWRENCE						
Parks	6,500	17,000	28,000	86,000	45,000	155,000
Ocean Beaches *	185,000	195,000	335,000	358,000	383,000	447,000
FALL RIVER-NEW BEDFORD						
Parks	6,500	17,000	28,500	62,500	42,000	126,000
Ocean Beaches *	48,000	64,000	350,000	401,000	385,000	447,000
WORCESTER						
Parks	8,000	42,000	32,000	98,500	45,000	160,000
Ocean Beaches *	—	—	300,000	300,000	383,000	447,000
SPRINGFIELD						
Parks	3,500	21,000	18,500	98,000	42,500	150,000
Ocean Beaches *	—	—	—	—	383,000	414,000

* Includes beaches administered by Metropolitan District Commission, Department of Public Works, Department of Natural Resources and Trustees of Reservations.

Figure 28b

PRESENT AND PROPOSED
CAPACITY OF RECREATION AREA FACILITIES
BY REGIONS OF MASSACHUSETTS

(Capacity is the number of people that can be comfortably accommodated at one time)

REGION	CAPACITY					
	Forests Parks & Reservations		Ocean Beaches*		Total	
	1957	1977	1957	1977	1957	1977
1. BERKSHIRE	5,000	28,000	—	—	5,000	28,000
2. CONN. VALLEY	4,500	26,500	—	—	4,500	26,500
3. WORCESTER	8,000	41,000	—	—	8,000	41,000
4. MERRIMACK	2,000	6,500	25,000	35,000	27,000	41,500
** 5. MASS. BAY & ENVIRONS	19,000	33,500	310,000	323,000	329,000	356,500
6. BRISTOL - PLYMOUTH	6,000	16,500	40,000	48,000	46,000	64,500
7. CAPE & ISLANDS	4,500	11,000	10,000	41,000	14,500	52,000
TOTAL	49,000	163,000	385,000	447,000	434,000	610,000

* Includes beaches administered by the Metropolitan District Commission, Department of Public Works, Department of Natural Resources and Trustees of Reservations.

** Includes Parks and Reservations administered by the Metropolitan District Commission

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major urban centers. If the proposed program is completed by 1977, urban families will be within a half-hour drive of twice as many accommodations as is the case at present.

Financing.

The need for an immediately stepped-up program to provide adequate opportunities for public outdoor recreation has been spelled out. Money spent for this purpose will be an investment from which the future earnings will unquestionably be substantial.

Not only will the State's own citizens derive the benefit of greatly improved opportunities for outdoor recreation, but putting the recommended program into effect will increase the State's appeal to vacation visitors from other regions. Vacation travel business is a highly important economic asset to Massachusetts. It has been estimated that it results in an influx, from outside the State, of about \$250 million annually. If, as authoritative studies indicate, 10 per cent of this represents net profit to the citizens and industries of Massachusetts, their total annual income is \$25 million greater than it would otherwise be. This is equivalent to the yield, at 4 per cent, on a principal sum of \$625 million.

The vacation travel business can be greatly increased, possibly even doubled, if an effective effort is made. The cost of such an effort would be only a fraction of the current net annual return. It is possible to believe that the return from the potential increase in vacation travel business could liquidate the whole cost of the proposed public outdoor recreation program with something to spare. The New Hampshire State Planning and Development Commission has estimated that 5 per cent of vacation expenditures reach the state and local governments as tax payments. If this is true in Massachusetts, the funds that vacation visitors bring in raises the total tax revenue by \$12.5 million annually. This means that increasing the vacation business brought in by outsiders by a little more than a third would increase tax revenues by 5 million dollars a year. This is equal to the average annual capital outlay recommended in this report.

There are, of course, several methods by which the direct financing of the suggested program could be accomplished. The funds could be supplied, as needed each year, by appropriation from the General Fund balanced by collection of such tax revenue as would

be required. The special assessment now levied on the cities and towns for state park purposes could be increased. Donations of funds, land or other assets from individuals, corporations, foundations or other organizations could be solicited. As far as is known, federal aid through grants or loans is not available to the States for public recreation purposes.

Regardless of the method of financing adopted, there can be little question but that the program should be undertaken. Massachusetts cannot afford to let its opportunities escape. If it hopes to continue to prosper, it must invest in its future. It must not let its life insurance premiums lapse. This is the frame of reference in which adequate financial support for the public outdoor recreation program is recommended.

The preceding chapters of this report, while defining the proposed \$100 million program as a long-range plan over a period of twenty years, emphasize the importance of completing the major part during the first five years to meet the current and expected demands. To attempt to pay for that portion, estimated to cost about \$60 million, out of current funds might place unreasonable burdens upon the State's finances during those years.

People will be enjoying the results of the program twenty, thirty and fifty years from now. It is no more than fair that the future users should carry their part of the financial load. This can best be accomplished by spreading the cost through long-term bond issues of the Commonwealth, sold from time to time, as the need requires, for terms of not more than twenty years, the last maturity occurring thirty years from now. If issued under the serial payment plan with the so-called "level debt" provision the annual requirement for debt service, principal and interest will be the same each year for any particular issue. This arrangement makes it possible for those administering the State's financial matters to know in advance the annual requirement for underwriting the program.

Provision for financing the program through the sale of bonds of the Commonwealth is included in the draft of legislation accompanying this report.

Fig. 29, page 91 (chart), shows year by year the anticipated bond issues together with the estimated annual appropriations for debt service charges.

FIG. 29. — *Suggested Financing Plan.***\$100,000,000 LONG-RANGE NATURAL RESOURCES DEVELOPMENT PROGRAM.**

[Serial Bonds, "Level Debt" Plan, Equal Payments (Interest and Principal) Each Year.]

YEAR.	Bond Issue.	3.5 Per Cent Term (Years).	Debt Service (Interest and Principal) per Year.	Accumulated Debt Service for Year.
1957	\$14,000,000	20	\$985,054	\$985,054
1958	14,000,000	20	985,054	1,970,108
1959	12,000,000	20	844,332	2,814,440
1960	10,000,000	20	703,610	3,518,050
1961	10,000,000	20	703,610	4,221,660
1962	-	-	-	4,221,660
1963	5,000,000	20	351,805	4,573,465
1964	-	-	-	4,573,465
1965	5,000,000	20	351,805	4,925,270
1966	-	-	-	4,925,270
1967	5,000,000	20	351,805	5,277,075
1968	-	-	-	5,277,075
1969	5,000,000	18	379,085	5,656,160
1970	-	-	-	5,656,160
1971	5,000,000	16	413,225	6,069,385
1972	-	-	-	6,069,385
1973	5,000,000	14	457,855	6,527,240
1974	-	-	-	6,527,240
1975	5,000,000	12	517,420	7,044,660
1976	-	-	-	7,044,660
1977	5,000,000	10	601,205	6,660,811
1978	-	-	-	5,675,757
1979	-	-	-	4,831,425
1980	-	-	-	4,127,815
1981	-	-	-	3,424,205
1982	-	-	-	3,424,205
1983	-	-	-	3,072,400
1984	-	-	-	3,072,400
1985	-	-	-	2,720,595
1986	-	-	-	2,720,595
1987	-	-	-	2,368,790

LEGISLATION.

Taking by Eminent Domain.

Chapter 132A of the General Laws titled "State Parks and Reservations Outside the Metropolitan Parks District" includes provisions under which the Department of Natural Resources may acquire property for recreational purposes. The right to take by eminent domain is specifically excluded by section 3 of said chapter. Without that right the Department must enter into long drawn-out negotiations, often leading to serious, unwarranted delays. A draft of legislation to amend section 3 by inserting authority to take by eminent domain appears in Appendix F.

Development of the Proposed Program.

There is appended a draft of a bill to carry into effect the program recommended by this report. The bill authorizes the Department of Natural Resources to establish a program of development of state parks, forests and recreation areas, to improve existing areas and to acquire such additional land and water areas as may be required. It provides that sites acquired or developed shall in so far as practicable be preserved in their natural state; also that facilities established shall, if possible, be self-supporting.

Under the proposed bill, the program would be administered by the Division of Forests and Parks, with assistance in the planning stage by the Department of Public Works, Metropolitan District Commission, Department of Public Health and Department of Commerce. The cost of acquisition and development would be met by the issuance of bonds of the Commonwealth for terms not exceeding twenty years.

The bill defines the types of proposed areas and facilities and appurtenances. It also provides that the Department shall establish and collect fees for the use of the facilities, and that any deficit resulting shall be met through the provisions of chapter 132A of the General Laws.

Extension of Time.

Existing legislation, chapter 471 of the Acts of 1955, amended by chapter 591 of the Acts of 1956, provides that the final report there-

under shall be filed on or before the first Wednesday of December, 1957. As has been pointed out by this and previous reports, the entire subject of natural resources planning cannot be completed within that time. To allow the continuation of this and other phases of the program, a draft of a bill extending the time to December, 1958, is appended.

ACKNOWLEDGMENTS.

Personal contact, conferences and correspondence with representatives of many federal, state, municipal, semi-public and private agencies contributed substantially to the information contained in this report. We could not have completed this study without such assistance.

In addition to the Department of Natural Resources, the helpful co-operation and assistance of the following are gratefully acknowledged and deeply appreciated.

American Automobile Association.
Berkshire Hills Conference.
Cape Cod Chamber of Commerce.
Connecticut River Watershed Council.
Connecticut State Park and Forest Commission.
Curtis Publications.
The Federal Reserve Bank of Boston.
Florida Development Commission.
Harvard University.
Martha's Vineyard Chamber of Commerce.
Massachusetts Department of Commerce.
Massachusetts Department of Public Health.
Massachusetts Department of Public Works.
Massachusetts Forest and Park Association.
Massachusetts Registry of Motor Vehicles.
Massachusetts Turnpike Authority.
Metropolitan District Commission.
National Conference on State Parks.
National Recreation Association.
The New England Council.
New England-New York Inter-Agency Committee.
New York Department of Conservation.

The New York, New Haven and Hartford Railroad Company.
 Oklahoma Planning and Resources Board.
 Pioneer Valley Association.
 Rhode Island Development Commission.
 Rhode Island Division of Parks and Recreation.
 Trustees of Reservations.
 U. S. Army, Corps of Engineers.
 U. S. Department of Commerce.
 U. S. Department of the Interior.
 U. S. Department of Labor.
 U. S. Forest Service.
 U. S. Superintendent of Documents.
 Westfield River Watershed Association.
 Wildlife Conservation, Incorporated.

APPENDIX A.

ORDER OF PRIORITY OF ACQUISITION AND DEVELOPMENT

FORESTS, PARKS AND RESERVATIONS.

Acquisition.

Priority A-I. — Lands recommended for acquisition before December 31, 1959:

Reference Number.	NAME.	LOCATION.	
		Region.	Town.
36	Ames Pond	4	Tewksbury
37	Ashland S. P.	5	Ashland
38	Bare Hill Pond	3	Harvard
39	Beaver Lake	2	Ware
40	Beaver Pond	6	Bellingham
41	Black Mountain	5	Marshfield
42	Bound Brook	5	Norwell
43	Brooks Pond	3	Oakham
44	Bradley W. Palmer S. P.	4	Topsfield
45	Bulkley Dunton	1	Becket
46	Carding-Mill Pond	5	Sudbury
47	Cheshire Reservoir	1	Cheshire
48	Cleveland Pond	5	Abington

Reference Number.	NAME.	LOCATION.	
		Region.	Town.
49	Cooley Lake	2	Granville
50	D. A. R. S. F.	2	Goshen
51	Dighton Rock S. P.	6	Berkley
52	Dinosaur Footprints	2	Holyoke
53	Farm Pond	5	Sherborn
54	Foxboro S. F.	5	Foxborough
55	G-Bar-S Ranch	1	Great Barrington
56	Goose Pond	1	Tyringham
57	Gore Pond	3	Charlton
58	Hairpin Turn	1	North Adams
59	Halfway Pond	6	Plymouth
60	Harold Parker S. F.	4	North Andover
61	Heald Pond	4	Pepperell
62	Holyoke Range	2	Amherst
19	Hopkinton S. F.	3	Hopkinton
63	Indian Head River	5	Pembroke
64	Indian Hill	6	Plymouth
65	J. A. Skinner S. P.	2	Hadley
66	Lake Garfield	1	Monterey
67	Leach Pond	5	Easton
68	Leominster S. F.	3	Leominster
69	Lovewell Pond	3	Hubbardston
70	Long Pond	6	Lakeville
71	Magnolia Shore	5	Gloucester
72	Milham Reservoir	3	Marlborough
73	Moss Brook	2	Warwick
74	Moulton Pond	3	Rutland
75	Mount Sugarloaf	2	Deerfield
76	Mystic Lake	7	Barnstable
77	Old Reservoir	3	Barre
78	Otter River S. F.	3	Winchendon
79	Peaked Cliff	6	Plymouth
80	Pelham Lake	2	Rowe
6	Pilgrim Springs S. P.	7	Provincetown
81	Rocky Pond	3	Boylston
82	Russell Pond	2	Russell
83	Spectacle and Lawrence Ponds	7	Sandwich
29	Standish Monument Res.	5	Duxbury
84	Strawberry Point	5	Scituate
85	Sudbury River	5	Wayland
86	Taconic Trail S. P.	1	Williamstown
87	Wachusett Mt. S. Res.	3	Westminster
88	Walker Pond	3	Sturbridge
89	Wallum Lake-Douglas S. F.	3	Douglas
90	Whitehall S. F.	3	Hopkinton
139	Willard Brook S. F.	3	Ashby
91	Wright Ponds	4	Ashby

Priority A-II. — Lands recommended for acquisition before December 31, 1962:

138	Beaver Brook	3	Royalston
92	Carter Pond	3	Petersham
93	Chesterfield Gorge	3	Chesterfield

Reference Number.	NAME.	LOCATION.	
		Region.	Town.
94	Crooked and Plainfield Ponds	2	Plainfield
95	Crouch Pond	2	Colrain
96	Crystal Lake	3	Douglas
97	French King Rock	2	Erving
98	Indian Pond	6	Kingston
99	Lake Wampanoag	3	Ashburnham
100	Lower Spectacle Pond	1	Sandisfield
101	Mashpee River	7	Mashpee
102	Mill Pond	1	Sheffield
103	Nashua River	4	Groton
104	Nissitissit River	4	Pepperell
105	Pierce Brook	3	West Brookfield
106	Rudd Pond	1	Becket
107	Sheomet Lake	2	Warwick
108	Skyline Drive	1	Pittsfield
109	Squanacook River	4	Groton
110	Steadman Pond	1	Monterey
111	Stuart Pond	3	Sterling
30	Tolland S. F.	2	Tolland
34	Wendell S. F.	2	Wendell
112	Westfield R. Upper Wilderness	2	Chesterfield
113	Westfield R. Goss Heights	2	Huntington
45	Yokum Pond	1	Becket

Priority A-III. — Lands recommended for acquisition before December 31, 1977:

114	Beartown-Otis S. F.	1	Monterey
115	Connor Pond	3	Petersham
116	Elders Pond	6	Lakeville
117	Erving-Wendell S. F.	2	Erving
118	Fitchburg Reservoir	4	Ashby
119	Haggetts Pond	4	Andover
120	Holyoke Range	2	Amherst
121	Locke Brook	4	Townsend
137	Martha's Vineyard S. F.	7	West Tisbury
122	Monroe-Mohawk-Savoy S. F.	1	Florida
123	Mount Greylock	1	Adams
124	Mount Everett	1	Mount Washington
125	Nagog Pond	4	Littleton
126	October Mountain-Goose Pond	1	Lee
127	Rocky Hill	3	Leominster
106	Rudd Pond Brook	1	Becket
128	Sandisfield S. F.	1	Sandisfield
129	Silver Lake	6	Halifax
130	South and Boot Ponds	6	Plymouth
131	Sudbury Reservoir	3	Southborough
132	Taconic Range	1	Williamstown
133	Upper Naukeug Lake	3	Ashburnham
33	Walden Pond	5	Lincoln
134	Wallis Reservoir	3	Douglas
135	Warwick S. F.	2	Warwick
136	Wheeler Pond	2	Warwick

Development.

Priority D-I. — Development on lands now owned to be completed before December 31, 1960:

Reference Number.	NAME.	LOCATION.		PROPOSED ALLOCATION OF MAJOR FACILITIES.					
				Swimming.	Boating.	Picnicking.	Tent Sites.	Trailer Sites.	Cabins.
		Region.	Town.						
1	Billerica S. F.	4	Billerica			x			
2	Campbell's Falls S. F. . . .	1	New Marlborough			x			
3	Lake Quinsigamond S. F. . .	3	Worcester	x	x	x			
4	Myles Standish S. F. . . .	6	Plymouth	x	x	x	x	x	
5	Nickerson S. F.	7	Brewster	x	x	x	x		
6	Pilgrim Spring S. P. . . .	7	Provincetown			x			
7	Purgatory Chasm S. Res. . .	3	Sutton			x			
8	Spencer S. F.	3	Spencer	x		x			
9	Robinson S. P.	2	Agawam	x		x			
10	Bash-Bish Falls S. F. . . .	1	Mount Washington			x			
11	Beartown S. F.	1	Monterey	x	x	x	x		
12	Brimfield S. F.	2	Brimfield	x	x	x	x	x	
13	Chester-Blandford S. F. . .	2	Blandford	x		x			
14	Clarksburg S. P.	1	Clarksburg	x		x	x		
15	Cochituate S. P.	5	Natick	x	x	x			
16	Erving S. F.	2	Erving	x	x	x			
17	Freetown-Fall River S. F. .	6	Freetown	x		x			
18	Granville S. F.	2	Granville	x		x	x		
19	Hopkinton S. F.	3	Hopkinton	x	x	x			
65	J. A. Skinner S. P.	2	Hadley			x			
20	Lowell-Dracut S. F.	4	Lowell			x			
21	Mass. Fed. W. C. S. F. . . .	3	Petersham			x			
22	Mohawk Trail S. F.	1	Charlemont	x		x	x		x
23	Mount Grace S. F.	2	Warwick			x			
24	Mount Tom S. Res.	2	Holyoke	x		x	x		
25	October Mountain S. F. . . .	1	Washington	x		x	x		x
26	Pittsfield S. F.	1	Hancock	x		x	x		
27	Sandisfield S. F.	1	New Marlborough	x	x	x			
28	Savoy S. F.	1	Savoy	x	x	x	x	x	x
29	Standish Mon. Res.	5	Duxbury			x			
30	Tolland S. F.	2	Tolland	x	x	x	x		
31	Otis S. F.	1	Sandisfield	x	x	x			
32	Wahconah Falls S. P. . . .	1	Dalton			x			
33	Walden Pond S. P.	5	Lincoln	x		x			
34	Wendell S. F.	2	Wendell	x	x	x	x		
35	Windsor S. F.	1	Windsor	x		x	x		
139	Willard Brook S. F.	3	Townsend	x		x	x	x	x

Priority D-II. — Development on lands to be acquired and completed before December 31, 1962:

Reference Number.	NAME.	LOCATION.		PROPOSED ALLOCATION OF MAJOR FACILITIES.					
		Region.	Town.	Swimming.	Boating.	Picnicking.	Tent Sites.	Trailer Sites.	Cabins.
36	Ames Pond	4	Tewksbury	x	x	x			
37	Ashland S. P.	5	Ashland	x	x	x			
38	Bare Hill Pond	3	Harvard	x	x	x	x		
39	Beaver Lake	2	Ware	x	x	x	x		x
42	Bound Brook	5	Norwell	x		x			
43	Brooks Pond	3	Oakham	x	x	x	x		
44	Bradley W. Palmer S. P.	5	Topsfield	x		x	x		
47	Cheshire Reservoir	1	Cheshire	x	x	x			
48	Cleveland Pond	5	Abington	x	x	x			
49	Cooley Lake	2	Granville	x	x	x			
50	D. A. R. S. F.	2	Goshen	x	x	x	x		
51	Dighton Rock S. P.	6	Berkley		x	x			
52	Dinosaur Footprints	2	Holyoke						
53	Farm Pond	5	Sherborn	x	x	x			
55	G-Bar-S Ranch	1	Great Barrington	x		x			
56	Goose Pond	1	Tyringham	x	x	x	x	x	
57	Gore Pond	3	Charlton	x	x	x			
59	Halfway Pond	6	Plymouth	x	x	x	x		
60	Harold Parker S. F.	4	North Andover	x		x	x	x	
61	Heald Pond	4	Pepperell	x	x	x	x		
62	Holyoke Range	2	Amherst			x			
63	Indian Head River	5	Pembroke	x		x			
67	Leach Pond	5	Easton	x	x	x	x		
68	Leominster S. F.	3	Leominster	x	x	x			
70	Long Pond	6	Lakeville	x	x	x			
71	Magnolia Shore	5	Gloucester			x			
73	Moss Brook	2	Warwick	x	x	x	x	x	x
74	Moulton Pond	3	Rutland	x	x	x			
75	Mount Sugarloaf	2	Deerfield			x			
76	Mystic Lake	7	Barnstable	x	x	x	x		x
78	Otter River S. F.	3	Winchendon	x	x	x	x	x	
81	Rocky Pond	3	Boylston	x	x	x	x		
82	Russell Pond	2	Russell	x		x	x		
84	Strawberry Point	5	Scituate			x			
85	Sudbury River	5	Wayland		x				
87	Wachusett Mount S. Res.	3	Westminster	x	x	x	x		
88	Walker Pond	3	Sturbridge	x	x	x	x		x
89	Wallum Lake-Douglas S. F.	3	Douglas	x	x	x	x		
90	Whitehall S. F.	3	Hopkinton	x	x	x	x	x	
91	Wright Ponds	3	Ashby	x		x	x		

Priority D-III. — Development on lands to be acquired and completed before December 31, 1977:

Reference Number.	NAME.	LOCATION.		PROPOSED ALLOCATION OF MAJOR FACILITIES.					
				Swimming.	Boating.	Picnicking.	Tent Sites.	Trailer Sites.	Cabins.
		Region.	Town.						
138	Beaver Brook	3	Royalston	x		x			
40	Beaver Pond	6	Bellingham	x	x	x			
41	Black Mountain	5	Marshfield	x		x			
45	Bulkley Dunton	1	Becket	x	x	x	x		x
46	Carding Mill Pond	5	Sudbury	x		x			
92	Carter Pond	3	Petersham			x			
93	Chesterfield Gorge	2	Chesterfield	x		x			
115	Connor Pond	3	Petersham	x		x			
94	Crooked and Plainfield Ponds .	2	Plainfield	x		x	x		
95	Crouch Pond	2	Colrain				x		
96	Crystal Lake	3	Douglas	x		x			
116	Elders Pond	6	Lakeville	x	x	x			
118	Fitchburg Reservoir	4	Ashby	x	x	x			
54	Foxboro S. F.	5	Foxborough	x		x			
97	French King Rock	2	Erving		x				
119	Haggetts Pond	4	Andover	x	x	x			
58	Hairpin Turn	1	North Adams			x			
120	Holyoke Range	2	Amherst			x			
64	Indian Hill	6	Plymouth	x	x	x			
98	Indian Pond	6	Kingston	x		x			
65	J. A. Skinner S. P.	2	Hadley		x				
66	Lake Garfield	1	Monterey	x	x	x			
99	Lake Wampanoag	3	Ashburnham	x	x	x			
121	Locke Brook	4	Townsend			x			
69	Lovewell Pond	3	Hubbardston	x	x	x			
100	Lower Spectacle Pond	1	Sandisfield	x	x		x		x
137	Martha's Vineyard S. F. . . .	7	West Tisbury	x	x	x			
101	Mashpee River	7	Mashpee			x			
72	Milham Reservoir	3	Marlborough	x	x	x			
102	Mill Pond	1	Sheffield	x		x	x		x
122	Monroe-Mohawk-Savoy S. F. .	1	Florida			x			
123	Mount Greylock	1	Adams			x	x		
124	Mount Everett	1	Mount Washington	x		x			
125	Nagog Pond	4	Littleton	x	x	x			
103	Nashua River	4	Groton			x			
104	Nissitissit River	4	Pepperell			x			
77	Old Reservoir	3	Barre	x		x	x		x
79	Peaked Cliff	6	Flymouth			x			
80	Pelham Lake	2	Rowe	x	x	x			
105	Pierce Brook	3	West Brookfield	x		x			
127	Rocky Hill	3	Leominster	x		x			
106	Rudd Pond	1	Becket	x	x	x			
123	Sandisfield S. F.	1	Sandisfield				x		
107	Sheomet Lake	2	Warwick	x	x	x	x		
129	Silver Lake	6	Halifax	x	x	x			
108	Skyline Drive	1	Pittsfield			x			
130	South and Boot Ponds	6	Plymouth	x	x	x	x		
83	Spectacle and Lawrence Ponds .	7	Sandwich	x	x	x	x		x

Reference Number.	NAME.	LOCATION.		PROPOSED ALLOCATION OF MAJOR FACILITIES.					
				Swimming.	Boating.	Picnicking.	Tent Sites.	Trailer Sites.	Cabins.
		Region.	Town.						
109	Squanacook River	4	Groton			x			
110	Steadman Pond	1	Monterey	x		x			
111	Stuart Pond	3	Sterling	x	x	x			
131	Sudbury Reservoir	3	Southborough	x	x	x			
132	Taconic Range	1	Williamstown			x			
133	Upper Naukeug Lake . . .	3	Ashburnham	x	x	x			
33	Walden Pond	5	Lincoln	x	x	x			
134	Wallis Reservoir	3	Douglas	x	x	x			
113	Westfield R. Goss Heights .	2	Huntington	x		x			
112	Westfield R. Upper Wilderness .	2	Chesterfield						
136	Wheeler Pond	2	Warwick	x	x	x			
45	Yokum Pond	1	Becket	x	x	x			

OCEAN BEACHES.

Acquisition.

Priority A-I. — Recommended for acquisition before December 31, 1959:

Reference Number.	NAME.	LOCATION.	
		Region.	Town.
140	Duxbury	5	Duxbury
141	Humarock	5	Marshfield
142	Sandy Neck	7	Barnstable
143	Washburn Island	7	Falmouth
144	West Island	6	Fairhaven

Priority A-II. — Recommended for acquisition before December 31, 1962:

145	Harding's	7	Chatham
146	Monomoy	7	Chatham
137	Plum Island	4	Newbury
148	Plymouth	6	Plymouth
149	Wingaersheek	5	Gloucester

Priority A-III. — Recommended for acquisition before December 31, 1977:

150	South Cape	7	Mashpee
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Development.

Existing ocean beaches or those currently under construction for which no development is planned under this program:

Reference Number.	NAME.	LOCATION.	
		Region.	Town.
151	Crane's Memorial	5	Ipswich
152	Demarest Lloyd	6	Dartmouth
153	Horseneck	6	Westport
154	Martha's Vineyard	7	Oak Bluffs
155	Provincetown (Province Lands)	7	Provincetown
156	Salisbury	4	Salisbury
157	Scusset	7	Sandwich

Priority D-I. — Development of ocean beaches to be completed before December 31, 1960:

140	Duxbury	5	Duxbury
143	Washburn Island	7	Falmouth

Priority D-II. — Development of ocean beaches to be completed before December 31, 1962.

142	Sandy Neck	7	Barnstable
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Priority D-III. — Development of ocean beaches to be completed before December 31, 1977:

145	Harding's	7	Chatham
141	Humarock	5	Marshfield
146	Monomoy	7	Chatham
147	Plum Island	4	Newbury
148	Plymouth	6	Plymouth
144	West Island	6	Fairhaven
149	Wingaersheek	5	Gloucester
150	South Cape	7	Mashpee

A P P E N D I X B .

DETAILED DESCRIPTIONS OF AREAS PROPOSED FOR
ACQUISITION AND DEVELOPMENT.

NAME:	Ames Pond, Tewksbury.
NUMBER:	36.
PRIORITIES:	A-I and D-II.
ACREAGE:	900.

Surrounded with excellent stands of pine, hemlock and hardwood, this pond has superior state park potential. Ames Hill, rising over 200 feet to the southwest of the pond, is another attraction. This critical area is exceptionally well suited to state park purposes due to its proximity to densely populated urbanized areas, and should be acquired immediately for day use. A portion of this area bordering North Street is now in danger of being subdivided for housing. Another portion belongs to the Ames Pond Fish and Game Club.

The boundary of this area should parallel North Street from Kendall Street, excluding the house lots, to the power line intersecting Andover Street. A parcel 1,000 feet wide should be taken north of Andover Street to protect the stream going into the pond. The line should then follow Andover Road east to Brown Street and south along Brown Street to the Middlesex County line. The area south of Kendall Street should then be acquired to extend as far east as Andover State Forest.

NAME:	Bare Hill Pond, Harvard.
NUMBER:	38.
PRIORITIES:	A-I and D-II.
ACREAGE:	1376.

With its rugged terrain and pine, hemlock and hardwood vegetation, the region surrounding this pond has excellent possibilities for both day and overnight use.

The park should extend from the northernmost portion of the pond to a point 1,000 feet west of Bolton Road, south from this point and parallel to Bolton Road to the Bolton line, west along this line to Still River Road, north one half mile and east to Bare

Hill Pond. The recommended acquisition does not include the areas on the west side of the pond which has a heavy concentration of cottages.

NAME: Bash Bish Falls State Forest,
Mount Washington.

NUMBER: 10.

PRIORITY: D-I.

No acquisition.

The facilities at Bash Bish Falls can be expanded for additional picnicking in the area adjacent to Bash Bish Brook. Long-range plans should consider inclusion of this area in a tri-state park.

NAME: Beartown-Otis State Forest,
Monterey.

NUMBER: 114.

PRIORITIES: A-III.

ACREAGE: 2,800.

This long-range acquisition would join Mount Hunger, the proposed acquisition on Lake Garfield and Steadman Pond, Otis State Forest and the proposed acquisition on Lower Spectacle Pond to provide a major recreation area with facilities for swimming, boating, picnicking, tenting and cabins.

NAME: Beartown State Forest, Monterey.

NUMBER: 11.

PRIORITY: D-I.

No acquisition.

This area can provide for additional day and overnight use at Benedict Pond, with no additional acquisition of land, and would complement the facilities at East Mountain State Forest and Otis State Forest.

NAME: Beaver Brook, Royalston.

NUMBER: 138.

PRIORITIES: A-II and D-III.

ACREAGE: 915.

A dam just east of Stone Road would impound 150 to 200 acres of water, and acquisition is recommended to provide day-use facilities.

The boundaries of this area should extend east from Stone Road to Beryl Hill and north from Winchendon Road to Deland Road.

NAME: Beaver Lake, Ware.
NUMBER: 39.
PRIORITIES: A-I and D-II.
ACREAGE: 2,500.

South of Quabbin Reservoir and with very little present development, this acquisition should provide day and overnight use with tent sites and cabins. This lake is half a mile south of Route 9, and less than five miles from the turnpike interchange at Route 32 in Palmer.

This area should extend north from the southerly end of Beaver Lake to the Metropolitan District Commission property and east from Cofey Road to Brimstone Hill. This would include the watershed of the lake.

NAME: Beaver Pond, Bellingham.
NUMBER: 40.
PRIORITIES: A-I and D-III.
ACREAGE: 985.

This pond appears to be rather shallow but of sufficient depth for swimming. It also has good potential for day use and boating.

The boundary of this area should extend from Farm Street to Grove Street and north from Hartford Avenue to Maple Street.

NAME: Billerica State Forest, Billerica.
NUMBER: 1.
PRIORITY: D-I.
No acquisition.

This area has limited picnicking facilities at the present time, with some possibilities for hiking. Expansion should keep pace with the demand as this new recreation area becomes more popular.

NAME: Black Mountain, Marshfield.
NUMBER: 41.
PRIORITIES: A-I and D-III.
ACREAGE: 1,200.

Located in a historical region adjacent to the ocean, including Governor Winslow's homestead and the site of Daniel Webster's house, this area should be preserved intact to maintain its historic character. The pond west of Governor Winslow's home should be investigated to see if it is suitable for swimming. With Black Mountain for picnicking, the pond for swimming and the historic interest, this site is ideal for day use.

This proposed park area should include a portion of Duxbury Marsh, land north of Careswell Street to Parsonage Street, east to Daniel Webster House and west to Enterprise Street.

NAME: Bound Brook, Norwell.
NUMBER: 42.
PRIORITIES: A-I and D-II.
ACREAGE: 930.

This is an interesting area both geologically and botanically. This area would fulfill not only the active day use recreation purpose in the vicinity of Bound Brook Pond, but would also provide educational opportunities and passive enjoyment in the drumlin area.

The area should be bounded by Mount Blue Street, Clapp Road, Summer Street and Central Street.

NAME: Bradley W. Palmer State Park, Topsfield.
NUMBER: 44.
PRIORITIES: A-I and D-II.
ACREAGE: 625.

Included in this park on the Ipswich River is a former estate with interesting trees and shrubs, picnic areas, bridle trails and lily ponds. The mansion is now occupied by the Civil Defense Administration. The Audubon Society's Ipswich River Sanctuary, of nearly 2,000 acres, adjacent to this park, presents a unique opportunity for canoeists to travel over four miles on the Ipswich River in unspoiled countryside through both the sanctuary and the park.

The existing dam on the Ipswich River north of Winthrop Street provides an area deep enough for swimming, but the current makes this impracticable. Further investigation should be made in this area to determine the possibility of constructing an embankment and sluiceway adjacent to the south side of the river to provide a swimming area. This seems extremely feasible and could be another excellent attraction in this park. Land should be purchased on both sides of Topsfield Road as far east as Winthrop Street to develop this project. Both group and individual picnicking and swimming could then be provided for on the south side of the river in this area. Activity in a gravel pit on the west side of Winthrop Street is spoiling an area adjacent to the park. Both sides of Winthrop Street are still attractive with the exception of this gravel pit, and should be acquired as far west as the existing park boundary. This could then provide a camping area very much needed to relieve the overcrowded condition in Harold Parker State Forest.

The Ashbury Street area is in danger of being subdivided. The area west of Highland Street and north and east of Vineyard Hill should be acquired to extend the boundary of Bradley W. Palmer Park to the Ipswich River Sanctuary. This would assure the preservation of Ashbury Street as a scenic approach to the park.

At the present time the park supervisor has no jurisdiction over a canoe rental, just outside the park limits. Since this private business is taking advantage of the park surroundings, the State should provide for this form of recreation on state park lands. By purchasing 40 acres of land on the Ipswich River west of the Ipswich River Sanctuary, adjacent to the High Valley Road, a canoe rental could be established which would be the western terminal for a four-mile canoe route. This route would follow the Ipswich River through the Ipswich River Sanctuary and Bradley W. Palmer State Park where the eastern terminus would be located.

NAME: Brimfield State Forest, Brimfield.
NUMBER: 12.
PRIORITIES. A-II and D-I.
ACREAGE: 450.

Brimfield State Forest, in Brimfield, three miles from Route 20, has been in operation for two seasons and provides swimming and picnicking at Dean Pond. This area can be expanded to provide overnight use with tents and trailer sites.

Wales Brook is another area partially within the forest which could be developed for day use after repair of the dam. This brook has excellent trout fishing. There are two other locations on Wales Brook where dams could be constructed, to provide areas for additional day and overnight use.

The boundaries of this area in the vicinity of Dean Pond should extend north from Munn Road along East Hill Road to South Nichols Mountain and east to the western boundary of the portion of Brimfield State Forest encompassing Dearth Hill.

The eastern portion of Brimfield State Forest in the vicinity of Wales Brook should be extended to the west to tie in with the major portion of the forest encompassing Dearth Hill.

NAME: Brooks Pond, Oakham.
NUMBER: 43.
PRIORITIES: A-I and D-II.
ACREAGE: 1,000.

Situated in Oakham and North Brookfield, this site has good terrain for day and overnight use facilities at the northern end. The southern portion is highly developed and thus not adaptable to state park purposes.

The southern boundary should parallel North Brook to Oakham Road north along Oakham Road and North Brookfield Road to South Road, south on South Road and Parmenter Road to the intersection of Parmenter Road with Northwest Road and west to the pond. The three major western parcels of Oakham State Forest should then be united with this taking on the north end of Brooks Pond.

NAME: Bulkley Dunton, Becket.
NUMBER: 45.
PRIORITIES: A-I and D-III.
ACREAGE: 1,062.

This inactive reservoir should be combined with October Mountain State Forest to provide day-use facilities for swimming, picnicking and boating. The Division of Fish and Game is in the process of acquiring a right of way to this pond at the present time.

This acquisition should include land west of Yokum Pond Road and south of County Road to October Mountain State Forest.

NAME: Campbells Falls State Forest,
New Marlborough.
NUMBER: 2.
PRIORITY: D-I.
No acquisition.

This scenic area has limited picnicking facilities. Some expansion is possible. Improvement of access and parking is recommended as well as co-operation on a bi-state basis between Massachusetts and Connecticut in administering this area.

NAME: Carding Mill Pond, Sudbury.
NUMBER: 46.
PRIORITIES: A-I and D-III.
ACREAGE: 3,150.

The recommended area is adapted to swimming, picnicking, fishing, boating and golfing. Acquisition would also help to preserve an area of national historic interest. This parcel should extend northerly from the Sudbury Reservoir lands to the U. S. Military

Reservation in Maynard, including lands in the vicinity of the Wayside Inn, Carding Mill Pond, Hagers Pond and Stearns Mill Pond.

NAME: Carter Pond, Petersham.
NUMBER: 92.
PRIORITIES: A-II and D-III.
ACREAGE: 840.

Situated in a very scenic area adjacent to the Harvard Forest, the pond itself is not deep enough for swimming. However, picnicking, hiking and nature study have excellent potential here.

The boundary of this area should extend west from Harvard Forest to the intersection of the power line with Glen Valley Road, southeast along the power line to Dana Road and northeast along Dana Road to Route 32 and 122 to the southern boundary of Harvard Forest.

NAME: Cheshire Reservoir, Cheshire.
NUMBER: 47.
PRIORITIES: A-I and D-II.
ACREAGE: 2,240.

The central reservoir is recommended for acquisition and development. Since it appears to be rather shallow, further investigation will be needed for determining its potential for swimming. Picnicking, boating and hiking should be provided.

This park should extend northwest from the central reservoir to Savage Hill and to the abandoned mine near Pettibone Brook.

NAME: Chester-Blandford State Forest,
Blandford.
NUMBER: 13.
PRIORITY: D-I.
No acquisition.

Additional swimming and picnicking facilities should be provided in the scenic Sanderson Brook Falls area. The existing pool is not suitable for swimming after the middle of July.

NAME: Chesterfield Gorge, Chesterfield.
NUMBER: 93.
PRIORITIES: A-II and D-III.
ACREAGE: 1,760.

The Trustees of Reservations administer 52 acres of the Chesterfield Gorge at the present time. The Westfield River south of the

Trustees' property to the Knightville Dam is very scenic and undeveloped, with many fine swimming and trout fishing holes. This area should be developed for picnicking, swimming and fishing. A primitive camping area would also be ideally located at the northern end of the Knightville flowage area. The flowage area could be used for hunting, fishing and hiking.

Acquisition should extend roughly 2,000 feet on each side of the river to include the gorge. This would extend north from the flowage area to Partridge Road.

NAME: Clarksburg State Park, Clarksburg.

NUMBER: 14.

PRIORITY: D-I.

No acquisition.

A newly established area with picnic facilities is located on Mauserts Pond. Bathing and overnight facilities should also be provided in this area.

NAME: Cleveland Pond, Abington.

NUMBER: 48.

PRIORITIES: A-I and D-II.

ACREAGE: 2,050.

This site, easily reached from the heavily populated Boston area, is within the Peregrine White Sanctuary and well wooded. Acquisition for development of day-use facilities is needed at this location.

The eastern boundary of this proposed park should run north from Rockland Street along Hancock Street and Thicket Street to the Weymouth Town Forest, and along the southwestern boundary of the Town Forest to Pond Street. The western boundary should border on North Quincy Street to its intersection with Chestnut Street, from which point the northwestern boundary would run to the intersection of Pond Street and the Town Forest.

NAME: Cochituate State Park, Natick.

NUMBER: 15.

PRIORITY: D-I.

No acquisition.

Located on Route 30, this park is heavily used for boating and picnicking. A narrow ribbon of park land surrounds this lake and there is limited room for expansion. The drop-off from the shoreline is too steep for swimming except in a few small areas. The

boating facilities should be developed to peak capacity because of the great attraction of this lake to Massachusetts residents and out-of-state vacationers. The Massachusetts Turnpike Authority's borrowed pit land, between Lake Cochituate and the Turnpike, should be acquired and replanted with trees to replace this former buffer area. Any other parcels of land that are available adjacent to this park should be acquired to protect this critical area.

NAME: Connor Pond, Petersham.
NUMBER: 115.
PRIORITIES: A-III and D-III.
ACREAGE: 1,400.

The existing dam is in need of repair, and, since the 1953 tornado, sections of this area are nearly devoid of sizable trees. This land, the cost of which should be low, should be acquired for future development. The acquisition should include the watershed of this pond. This would be an excellent area for a demonstration conservation project with the ultimate objective of using it as a recreation area.

NAME: Cooley Lake, Granville.
NUMBER: 49.
PRIORITIES: A-I and D-II.
ACREAGE: 215.

Surrounded mostly by pasture land, orchards and woodlands, and relatively undeveloped, this lake has good potential for day use.

Acquisition should include the land bounded by Cross Lane, Dickinson Brook, Silver Street and Sodom Street.

NAME: Crooked Pond and Plainfield Pond,
Plainfield.
NUMBER: 94.
PRIORITIES: A-II and D-III.
ACREAGE: 2,500.

These ponds are undeveloped and suitable for both day use and camping. This area is considered one of the best in the state for both deer and small game.

Acquisition should extend from Route 116 on the south to Savoy Road on the north, and from the Berkshire County line easterly to Hallockville Road and Hawley State Forest.

NAME: Crouch Pond, Colrain.
NUMBER: 95.

PRIORITIES: A-II and D-III.

ACREAGE: 5,025.

This pond is in a very wild area in the scenic Catamount Hills, and should be utilized for primitive camping, hiking, fishing and hunting.

Acquisition should include the area east of Pocumtuck Mountain to Adamsville Road and Colrain Road and north of the Shelbourne town line to Heath Road.

NAME: Crystal Lake, Douglas.

NUMBER: 96.

PRIORITIES: A-II and D-II.

ACREAGE: 490.

East of Douglas State Forest and with an excellent spruce swamp type of vegetation, the area lying west of this lake should be acquired for future day use. It should extend from Cedar Street to Douglas State Forest.

Manchaug Pond should also be considered in the same priority of acquisition to provide boating facilities by extending the northern boundary of Douglas State Forest to the southern portion of this pond.

NAME: D. A. R. State Forest, Goshen.

NUMBER: 50.

PRIORITIES: A-I and D-II.

ACREAGE: 687.

Expansion of swimming, picnicking and tenting facilities and new facilities for boating can be provided in this recreation area by acquiring the remainder of the undeveloped frontage on the Highland Lakes.

Additional land should be purchased west of the lower lake to Cape Street. On the upper lake the line should extend north to the Ashfield town line and east from Cape Street to the forest boundary.

NAME: Dighton Rock State Park, Berkley.

NUMBER: 51.

PRIORITIES: A-I and D-II.

ACREAGE: 315.

This park should be expanded to take in Hospital Hill and to provide a buffer zone at the southerly end to protect it from the subdivisions being developed. The undesirable cottages in the existing park should be removed and the Rock made more accessible to

visitors. An investigation is currently under way to determine how this can best be accomplished. Boating and picnicking facilities should also be provided.

The boundaries of this site should extend south from the creek north of Hospital Hill to a line one half mile south of Old Ferry Road, and east from the Taunton River to Bayview Avenue.

NAME: Dinosaur Footprints, Holyoke.
NUMBER: 52.
PRIORITIES: A-I and D-II.
ACREAGE: 32.

Administered by the Trustees of Reservations this historic and geologic attraction is extremely difficult to reach because of a serious traffic condition on Route 5 and lack of parking facilities.

By acquiring adjacent land south of the footprints, improved access and a limited parking area would alleviate this condition.

NAME: Duxbury Beach, Duxbury.
NUMBER: 140.
PRIORITIES: A-I and D-I.
OCEAN FRONTAGE: 2½ miles.

The northerly end of this beach is operated by private interests for public use. South of this area is a portion set aside for Duxbury residents. The plan proposes a new access road from Marshfield to by-pass both these areas and reach the southerly half of the spit, of which two and one half miles would remain for state development.

NAME: East Mountain State Forest (G-Bar-S Ranch),
Great Barrington.
NUMBER: 55.
PRIORITIES: A-I and D-II.
ACREAGE: 2,050.

Formerly East Mountain was used only for skiing, half of the facilities being on state land and half on privately owned land, with the tows and concessions operated by the owners of G-Bar-S Ranch. Legislation is now pending for acquisition of this ranch for state development. Swimming, picnicking and improvements to the skiing area are recommended.

The boundaries of this acquisition should extend northwest from the existing forest to Route 23, Brush Hill Road, Housatonic River and East Rock.

NAME: Elders Pond, Lakeville.
NUMBER: 116.
PRIORITIES: A-III and D-III.
ACREAGE: 640.

Presently a part of the Taunton Water Supply, this area should be considered for long-range acquisition if the city of Taunton abandons it as a water supply. The boundaries of this area should extend from Pickens Street to Montgomery Street and Hill Street to Precinct Street south and east of the pond.

NAME: Erving State Forest, Erving.
NUMBER: 16.
PRIORITY: D-I.
No acquisition.

The Laurel Lake recreation area has good beach and picnic facilities, but they are limited by cottage development along the shore. It is recommended that a new area be provided at Moss Brook to relieve the overcrowded conditions here.

NAME: Erving and Wendell State Forest,
Erving.
NUMBER: 117.
PRIORITIES: A-III.
ACREAGE: 7,890.

Long-range acquisition between these two forests should include areas adjacent to Route 2 and the Millers River, thus protecting this scenic area along the Mohawk Trail.

The present western boundary of Erving State Forest should be extended south over Poplar Mountain to Country Hill in Wendell State Forest. The easterly line should extend to Whetstone Brook in Wendell and Moss Brook in Erving. Private parcels inside the existing forests should also be purchased.

NAME: Farm Pond, Sherborn.
NUMBER: 53.
PRIORITIES: A-I and D-II.
ACREAGE: 425.

Located in the Sherborn Town Forest, swimming and picnicking facilities on this pond have been designed for local use. The Department should acquire this area for a state park and either expand the existing town facilities, if the town will co-operate, or provide

new facilities of state park caliber in a different area adjacent to the pond for swimming, picnicking and boating.

The park area should extend from the New York, New Haven & Hartford Railroad on the west, Farm Road on the north, Goulding Street to Rocky Narrows Reservation on the south to a line parallel with and 1,000 feet east of the Charles River, thence along this line to Farm Road.

NAME: Fitchburg Reservoir, Ashby.
NUMBER: 118.
PRIORITIES: A-III and D-III.
ACREAGE: 750.

Long-range acquisition should include land around the Fitchburg and Ashby reservoirs and land in the vicinity of Vinton Pond. Day-use and overnight facilities should be provided in these areas as demand for them dictates.

NAME: Foxborough State Forest,
Foxborough.
NUMBER: 54.
PRIORITIES: A-I and D-III.
ACREAGE: 500.

This state forest should be expanded to include water facilities which can be provided at Carpenter Pond and another smaller pond which has no name. This area is well wooded and adaptable to state park purposes.

The area recommended for acquisition includes all of the land west of Lakeview Road, south of Main Street and east of Washington Street, lying north of the existing state forest, with the exception of house lots on these streets.

NAME: Freetown-Fall River State Forest,
Freetown.
NUMBER: 17.
PRIORITY: D-1.
No acquisition.

Although picnic areas are available here, there are no facilities for swimming.

A water body suitable for swimming can be provided by constructing a dam on Rattlesnake Brook. This would also provide an excellent group picnic area. Development is considered urgent to satisfy demands of the New Bedford-Fall River area.

NAME: French King Rock, Erving.
NUMBER: 97.
PRIORITIES: A-II and D-III.
ACREAGE: 50.

A limited boat launching area should be provided on the east side of the Connecticut River one half mile north of French King Rock.

Consideration should also be given to acquiring additional land on each side of the river north of French King bridge to preserve this unusually scenic area.

NAME: Goose Pond, Tyringham.
NUMBER: 56.
PRIORITIES: A-I and D-II.
ACREAGE: 1,650.

The easterly half of this pond, part of one of the larger water bodies in the Berkshires, is undeveloped at the present time. This area is located approximately two miles from the Lee Interchange on the Massachusetts Turnpike and would provide an excellent site for a major recreation area, including day and overnight use.

The area suggested for acquisition lies south of the Turnpike and Route 20, west of the Becket-town line and north of Pond Road, the western boundary to be on a line running to the east of the present summer cottage development.

NAME: Gore Pond, Charlton.
NUMBER: 57.
PRIORITIES: A-I and D-II.
ACREAGE: 1,600.

Approximately 10 miles from the Massachusetts Turnpike Interchange in Auburn, this site has little development at the present time and should be acquired for day use in the event that the Corps of Engineers does not provide recreation facilities at Buffumville Dam.

The boundary of this area should extend south from the intersection of Schoolhouse Road with Ramshorn Road, along Ramshorn Road to Dresser Hill Road, west on Dresser Hill Road, north on Dudley Road and northeast on Schoolhouse Road to Ramshorn Road.

NAME: Granville State Forest, Granville.
NUMBER: 18.
PRIORITY: D-I.
No acquisition.

This location has picnic, tent and trailer sites which could be expanded along the Hubbard River. Swimming and fishing are also available in this area.

NAME: Haggets Pond, Andover.
NUMBER: 119.
PRIORITIES: A-III and D-III.
ACREAGE: 720.

Haggets Pond should be considered for long-range acquisition in the event that the town of Andover develops another source for water supply. This area should include the existing protected watershed together with Wood Hill west of the pond.

NAME: Hairpin Turn, North Adams.
NUMBER: 58.
PRIORITIES: A-I and D-III.
ACREAGE: 200.

The area to be acquired is above Hairpin Turn and overlooks the Hoosic River Valley. A scenic overlook and picnic area should be provided here to take advantage of the panorama from the summit which has always been a tourist attraction.

The boundaries of this area should extend north from West Summit to Hairpin Turn with Route 2 on the west and the Florida town line on the east.

NAME: Halfway Pond, Plymouth.
NUMBER: 59.
PRIORITIES: A-I and D-II.
ACREAGE: 1,000.

To relieve the overcrowded conditions in Myles Standish State Forest, Halfway Pond, located east of the state forest, should be acquired immediately. Larger than any of the ponds in the forest, and with a large wooded island in the middle, this relatively undeveloped pond would make an excellent area for day use.

Long Pond, adjacent to Halfway Pond, should have parking facilities and public access for fishermen. This is one of the best trout ponds in the State. The parcel to be included would extend from the easterly boundary of Myles Standish State Forest to the west shore of Long Pond and the south shore to Gallows Pond.

NAME: Harding's Beach, Chatham.
NUMBER: 145.
PRIORITIES: A-II and D-III.
OCEAN FRONTAGE: One mile.

Operated by the town of Chatham, this beach has frequently been mentioned as being of state beach caliber. This beach may present an opportunity for joint state-town action.

NAME: Harold Parker State Forest,
Andover.
NUMBER: 60.
PRIORITIES: A-I and D-II.
ACREAGE: 530.

Harold Parker State Forest in Andover and North Andover is accessible from Routes 125 and 114 as well as several secondary roads. Both the day and overnight use areas are in constant demand, which warrants their expansion. Additional swimming and picnicking areas should be provided around the ponds east of Jenkins Road, with the overnight areas for tenting and trailer sites adjacent to the ponds on the west side of Jenkins Road. This suggestion differs from the design proposed in the report to the Legislature under chapter 85, Resolves of 1955, in that a greater area is available for future expansion.

Additional parcels should be acquired to round out the existing boundaries. The boundary south of Field Pond and Frye Pond should be extended to the Middlesex County line from Central Street to Haverhill Street. The area east of Haverhill Street should be acquired south to Marblehead Street. The area between Jenkins Road and Brackett, Collins and Field Ponds should be acquired as well as the land on both sides of Route 114 to combine the many parcels of state property in the area.

NAME: Heald Pond, Pepperell.
NUMBER: 61.
PRIORITIES: A-I and D-II.
ACREAGE: 1,065.

This pond lies in a picturesque setting with the rugged forested hills rising from the west shore. Facilities for swimming, picnicking, boating and tenting should be provided here.

The boundary of this area should extend southeast from the intersection of Oak Hill Road and Chestnut Street to the intersection of Heald Street and Maple Street, south to Jewett Street, and west along Jewett Street and Hog Hill Road to the intersection of Hog Hill Road with Lock Road. From this point the boundary should extend northeast along Chestnut Street to its intersection with Oak Hill Road.

NAME: Holyoke Range, Amherst.
NUMBER: 62.
PRIORITY: A-I and D-II.
ACREAGE: 260.

The scenic area in the Notch and Devils Garden on Route 116 should be acquired immediately, since development is taking place in this area at the present time. Provision should be made for picnicking, hiking and scenic overlooks.

The proposed area extends northerly from the intersection of Route 116 and the Granby town line, 500 feet on each side of Route 116, to a line one half mile south of Bay Road.

NAME: Holyoke Range, Amherst.
NUMBER: 120.
PRIORITIES: A-III and D-III.
ACREAGE: 8,560.

This area in Hadley, Amherst, South Hadley and Granby includes the scenic mountain range abutting Joseph Allen Skinner State Park.

This proposed long-range acquisition includes the land between the Connecticut River on the west, Route 63 on the east, Bay Road on the north, and the State Park in the south.

In addition, the mountain range east of the State Park should be acquired by taking all of the area lying north of Pearl Street and Bachelor Road, west of Harris Road and south of Bay Road.

NAME: Hopkinton State Park, Hopkinton.
NUMBER: 19.
PRIORITY: A-I and D-I.
ACREAGE: 440.

Hopkinton State Park, on Route 85, near Cordaville, is utilized only for boating and fishing at the present time, but should be considered for swimming and picnicking as the need becomes more critical. Additional park land should be acquired north of the existing park boundary to the Boston & Albany Railroad land, including the Sudbury River east of Cordaville Street. The eastern terminus of this parcel should be the pipe line running north from the intersection of Howe Street and Cross Street.

NAME: Humarock Beach, Marshfield.
NUMBER: 141.
PRIORITIES: A-I and D-III.
OCEAN FRONTAGE: 4,000 feet.

There are at present nearly 4,000 feet of undeveloped beach left in this area. Holly Ridge near by is about to be divided for housing lots. This area, on which there is a good stand of Holly trees, could be a very interesting picnic area adjacent to Humarock Beach.

NAME: Indian Head River, Pembroke.

NUMBER: 63.

PRIORITIES: A-I and D-II.

ACREAGE: 1,300.

A good location for swimming, picnicking and horseback riding, this site will be easily accessible from Metropolitan Boston via the Southeast Expressway and new Route 3. The dam west of West Elm Street is in good condition and provides an excellent body of water for swimming. The abandoned railroad bed is currently being used for a bridle trail, but needs improving. Upstream from the dam there is another feasible site for a dam which could provide for expansion of the existing area when needed.

The area near the existing dam is now in danger of development and should be acquired immediately.

The boundaries of this area should extend south from Water Street to Dwelly Street easterly from State Street to Route 3 along Indian Head River.

NAME: Indian Hill, Plymouth.

NUMBER: 64.

PRIORITIES: A-I and D-III.

ACREAGE: 3,050.

Indian Hill, Island Pond, Long Island Pond, Beaverdam Pond, Shallow Pond and Indian Brook are included in this acquisition which will provide a unique area combining a number of freshwater ponds with a scenic outlook over the ocean. Island Pond and Long Island Pond are surrounded by excellent pine and hardwood vegetation and are well adapted to day and overnight use. A portion of the Pine Hills area west of these ponds should be included for the panorama of the Atlantic Ocean to the east, and pine lands to the west.

At the present time a housing development is progressing toward Indian Hill which should be preserved for its scenic attraction. This area will include several cranberry bogs. They should be allowed to continue operations not only for the economic well-being of the region but for their interest to the park visitors.

The boundary of this proposed park area should extend from the mouth of Indian Brook west to the intersection of Indian Brook Road and Route 3, northwest to Beaverdam Road north of Beaverdam Pond, north one half mile on Beaverdam Road, west through Pine Hills to Sandwich Road, southeast along Sandwich Road to Ship Pond Road, east along this road to Route 3, north on Route 3 to the existing entrance to the housing development on Indian Hill, and northeasterly to the ocean.

NAME: Indian Pond, Kingston.
NUMBER: 98.
PRIORITIES: A-II and D-III.
ACREAGE: 735.

Adjacent to Kingston State Forest, with excellent vegetation and located in a scenic cranberry region, the areas surrounding this pond and Muddy Pond should be acquired for day use.

Acquisition of the land surrounding Indian Pond should extend northwest from Kingston State Forest along Pond Street to Elm Street, southwest five eighths of a mile along Elm Street, south to include Granny Pond and east to Kingston State Forest.

The taking around Muddy Pond should extend southeasterly from the State Forest along Pond Street to Nicks Rock Road, northeast along this road one half mile, thence north to Monks Hill and west to the southeast corner of the forest.

NAME: J. A. Skinner State Park, Holyoke.
NUMBER: 65.
PRIORITIES: D-I, A-I and D-III.
ACREAGE: 200.

There is access at present to a limited parking area on the summit of Mount Holyoke. The proposed reconstruction of the tramway should be initiated, the summit house renovated and additional parking provided at the halfway point. This would help to accommodate the large number of people who have been turned away from this scenic area.

Northwest of the existing park a picnic area and boating marina adjacent to the Connecticut River should be provided. The boundaries of this area should extend north and west of the existing state park to the Fort River and Connecticut River, respectively.

NAME: Lake Garfield, Monterey.
NUMBER: 66.
PRIORITIES: A-I and D-III.
ACREAGE: 300.

A portion of Lake Garfield adjacent to the Hunger Mountain Tract of Beartown State Forest should be acquired for development of day-use facilities. Since cottage development is increasing on the south and west shores early action is recommended.

The area between Lake Garfield and the land now owned by the State should be purchased.

NAME: Lake Quinsigamond State Park,
Worcester.
NUMBER: 3.
PRIORITY: D-I.
No acquisition.

The state park, located just outside Worcester, is currently under construction. The present plans call for development of Aqua Park in addition to Lake Park and Regatta Point.

NAME: Lake Wampanoag, Ashburnham.
NUMBER: 99.
PRIORITIES: A-II and D-II.
ACREAGE: 1,525.

This area, adjacent to Ashburnham State Forest, has hardly any development around it and should be acquired for future day-use.

The western boundary of Ashburnham State Forest should be extended southwesterly from its intersection with Old County Road to a point on Stone Street, from this point southerly on Stone Street to its intersection with the telephone line, southeast along the telephone line to the stream going into Hobbys Pond and northeast to the Boston & Maine Railroad, thence northwesterly along the railroad to the southeastern boundary of the present State Forest.

NAME: Leach Pond, Easton.
NUMBER: 67.
PRIORITIES: A-I and D-II.
ACREAGE: 2,120.

Five miles from Brockton, and easily accessible to patrons from Metropolitan Boston via the nearly completed Fall River express-

way, this pond should be investigated further for swimming possibilities. The area lends itself well to picnicking and tenting. Puds Pond and Briggs Pond are also included in this acquisition. The boundaries of this proposed park should extend from Rattlesnake Hill south along Bay Street to its intersection with Lincoln Street, west on Allen Road and northwest to the intersection of Massapoag Avenue and Mansfield Street. From this point it should extend northeast to Rattlesnake Hill.

NAME: Leominster State Forest,
Leominster.
NUMBER: 68.
PRIORITIES: A-I and D-II.
ACREAGE: 1,540.

Expansion of the bathing and picnicking facilities at Crow Hill Pond and the acquisition of additional frontage on Paradise Pond would greatly increase the capacity of the area. There are several large wooded islands in the pond. Boating facilities would probably be popular.

Acquisition should include the privately owned interior parcels and should extend from the intersection of Myrick Road and Redemption Road to the Westminster town line and east to the original forest boundary.

NAME: Locke Brook, Townsend.
NUMBER: 121.
PRIORITIES: A-III and D-III.
ACREAGE: 275.

Located in a scenic and rather inaccessible area north of Willard Brook State Forest, this site is adaptable to picnicking, hiking and fishing and should be considered for long-range possibilities.

The area is bounded by Davis Road, Meadow Road and Robbins Road.

NAME: Long Pond, Lakeville.
NUMBER: 70.
PRIORITIES: A-I and D-II.
ACREAGE: 775.

Highly developed with cottages excepting along the northwest shore, which still has sufficient land for state park purposes, this area should be acquired to provide swimming, picnicking and boating for the New Bedford-Fall River region. At the present time a

housing development is encroaching on this area and it should be acquired immediately.

This proposed park should extend northwest from the lake over Alden's Hill to Pickens Street. The southwestern boundary should run from the intersection of the west shore of the pond at Robbins Lane along Robbins Lane and across Highland Road to the stream flowing into Mill Pond. The western boundary should follow this stream to Pickens Street thence along Pickens Street to Precinct Street. From this intersection, the boundary should run southeasterly along Routes 18 and 105 to Wayside, thence southwesterly to the lake.

NAME: Lovewell Pond, Hubbardston.
NUMBER: 69.
PRIORITIES: A-I and D-III.
ACREAGE: 920.

Adjacent to Westminster State Forest, this pond has five cottages and a sportsmen's club on its perimeter. This site should be acquired for swimming, fishing and boating before further development takes place. The existing northern boundary of the Westminster State Forest adjacent to Knowles Road should be extended 500 feet west of Newton Road, south to the intersection of Morgan Road and Westminster Road and east through the intersection of Grimes and Adams roads to the southern boundary of the easternmost parcel of Westminster State Forest.

NAME: Lowell-Dracut State Forest,
Lowell.
NUMBER: 20.
PRIORITY: D-I.
No acquisition.

Expansion of the picnic areas with their scenic vistas should take place as the demand warrants.

NAME: Lower Spectacle Pond, Sandisfield.
NUMBER: 100.
PRIORITY: A-II and D-III.
ACREAGE: 425.

Located in an attractive setting adjacent to Otis State Forest, this pond should be developed for overnight use with both tents and cabins. In conjunction with the day-use area on Upper Spectacle Pond, a major recreation area could be developed here.

This addition to Otis State Forest should extend south from the forest to Cold Springs Road at the south end of the pond, 2,000 feet east and west of the pond.

NAME: Magnolia Shore, Gloucester.
NUMBER: 71.
PRIORITIES: A-I and D-II.
ACREAGE: 40.

The Trustees of Reservations presently administer Magnolia Shore Reservation, providing limited picnicking in the area overlooking the sea. The property east of this reservation is for sale and includes a picturesque rocky coastal setting. This additional area should be acquired for its scenic attraction and developed for picnicking to supplement the facilities of the Trustees.

NAME: Martha's Vineyard State Forest,
West Tisbury.
NUMBER: 137.
PRIORITIES: A-III and D-III.
ACREAGE: 10,000 acres.

This area on Martha's Vineyard overlooks the scenic coast in a region where whaling was once the prevalent occupation. This relatively undeveloped area should be considered for swimming, picnicking, fishing and hiking as well as for its scenic and historic attractions.

Long-range planning should include consideration of all land from Martha's Vineyard State Forest to the coast between South Road and Meetinghouse Road.

NAME: Mashpee River, Mashpee.
NUMBER: 101.
PRIORITIES: A-II and D-III.
ACREAGE: 320.

Here is one of the few streams on the east coast where sea-running brook trout flourish. The excellent vegetation surrounding this area provides an ideal location for picnicking.

This area should extend from Falmouth Road north to the intersection of Meetinghouse Road and Waquoit Road with these roads as the east and west boundaries, respectively.

NAME: Massachusetts Federation of Women's Clubs
State Forest, Petersham.

NUMBER: 21.

PRIORITY: D-I.

No acquisition.

Adjacent to Quabbin Reservoir, with excellent scenic and hiking trails, this forest has facilities for picnicking which should be expanded.

NAME: Milham Reservoir, Marlborough.

NUMBER: 72.

PRIORITIES: A-I and D-III.

ACREAGE: 700.

At present a part of the Marlborough Water Supply, this site has good state park potential. Marlborough is currently negotiating with the Metropolitan District Commission for water from Quabbin Reservoir. If this negotiation is successful, Milham Reservation should be made available for recreation with facilities for swimming, picnicking and boating.

The acquisition should extend 500 feet south of Boundary Street to Hudson Street, north along Robin Hill Road to the Assabet River, northwest to River Road and Bigelow Street, east to Robin Hill and south to the intersection of Milham Street and Boundary Street.

NAME: Mill Pond, Sheffield.

NUMBER: 102.

PRIORITIES: A-II and D-III.

ACREAGE: 870.

This pond has excellent potential for day and overnight use with both tent sites and cabins.

The area should encompass land south of Appalachian Road to Cook Road and land west of Egremont Road and Route 7 to Bow Wow Road.

NAME: Mohawk Trail State Forest,
Charlмонт.

NUMBER: 22.

PRIORITY: D-I.

No acquisition.

Both the day-use and overnight areas should be expanded in a new site along the Deerfield River. Consideration should also be given to the possibility of providing a new swimming area near the island in the Deerfield River. This could be accomplished by constructing a small low dam.

NAME: Monomoy Island, Chatham.
NUMBER: 146.
PRIORITIES: A-II and D-III.
OCEAN FRONTAGE: $2\frac{1}{2}$ miles.

This ten-mile long sand spit extending southerly from Chatham is owned, with the exception of a relatively small part, by the federal government. The construction of a causeway or bridge would provide access and make possible the development of an excellent state beach.

Acquisition of the northerly $2\frac{1}{2}$ miles is recommended.

NAME: Monroe, Mohawk Trail and
Savoy State Forests.
NUMBER: 122.
PRIORITIES: A-III and D-III.
ACREAGE: 9,280.

Long-range acquisition is recommended in these areas to preserve the scenic character of this section of the Mohawk Trail and provide additional land for hunting, fishing and hiking.

The boundaries of this area are Savoy State Forest and Mohawk Trail State Forest on the south, Vermont on the north, Hairpin Turn on the west, and a line between Zoar and Monroe bridge on the east.

NAME: Moss Brook, Warwick.
NUMBER: 73.
PRIORITIES: A-I and D-II.
ACREAGE: 1,020.

A dam located below the junction of Moss and Darling brooks would impound an area of water of more than 600 acres at elevation 660. Acquisition of additional land adjacent to Warwick and Erving State forests should be considered to fill in around the flowage area.

Acquisition and development of this site would provide a major recreation area of substantial capacity and possibly provide for other important related water uses. Day and overnight use, including tent sites, cabins and trailer sites, should be provided here.

This acquisition should extend southwesterly from Moores Pond to the intersection of Flagg Road and Quarry Road with Warwick State Forest as the southern boundary. The eastern boundary should extend north from the forest and Hockanum Hill to Barber Hill and northwest to Moores Pond.

NAME: Moulton Pond, Rutland.
NUMBER: 74.
PRIORITIES: A-I and D-II.
ACREAGE: 960.

Located just north of Main Street (Route 122A) and less than 10 miles from Worcester, the area surrounding this pond is well forested and suitable for day use. The recommended parcel is bounded by Pomagusset Road, Brintnal Drive, Glenwood Road and a line 1,000 feet to the north of and parallel to Main Street.

NAME: Mount Everett, Mount Washington.
NUMBER: 124.
PRIORITIES: A-III and D-III.
ACREAGE: 22,000.

This area in the southwestern part of the State should be considered for a tri-state park. Massachusetts, New York and Connecticut all have excellent attractions in this wilderness area which should be preserved. Massachusetts has Mount Everett State Reservation, which includes the second highest mountain in the State and Bash Bish Falls. Plaintain Pond and Beaver Rock Falls are rather inaccessible but should be investigated.

Taconic State Park in New York State is adjacent to both Massachusetts and Connecticut. In Connecticut, Bear Mountain, the highest mountain in the State is near the state boundary, as is also Mount Riga State Park.

A co-operative effort should be made between the three States involved to make this a major recreation region. The boundaries of this area in Massachusetts should be north from the Connecticut State line to Mount Washington Road and Jug End Road, and east from the New York State line to Bow Wow Road, Route 7, and Silver Street.

NAME: Mount Grace State Forest,
Warwick.
NUMBER: 23.
PRIORITY: D-I.
No acquisition.

This area provides both picnicking and skiing. There is need for expanding the skiing facilities.

NAME. Mount Greylock State Reservation,
Adams.
NUMBER: 123.
PRIORITIES: A-III and D-III.
ACREAGE: 5,400.

A special commission administers this reservation which provides a wonderful panorama from the highest mountain in the State. Ninety per cent of the visitors are sightseers, half from out of State. The proposed Skyline Drive from Route 20 to Route 2, which will traverse this area, will stimulate increased interest in this spectacular scenic resource.

Further investigation is necessary to determine the skiing potential and feasibility of the currently proposed aerial tramway.

In addition to the Thiel Farm, which was purchased recently by the Department, acquisition should be directed toward preserving the scenic character of this area and should extend westerly along Roaring Brook, northerly along Deer Ridge and Hopper Road to Pattison Road, easterly along Notch Road, and southerly to Ragged Mountain and the intersection of Gould Road with Thiel Road.

NAME: Mount Sugarloaf State Reservation,
Deerfield.

NUMBER: 75.

PRIORITIES: A-I and D-II.

ACREAGE: 1,000.

This reservation should be expanded to include North Sugarloaf Mountain, extending north to Hillside Road. Additional picnicking and hiking trails should be provided here.

NAME: Mount Tom State Reservation,
Holyoke.

NUMBER: 24.

PRIORITY: D-I.

No acquisition.

The day-use area of this very popular reservation has facilities for picnicking and tenting. However, there is need for expansion of these facilities. Bray Lake and Kennedy Pond should be investigated for swimming potential to provide for this much-needed activity.

NAME: Myles Standish State Forest,
Plymouth.

NUMBER: 4.

PRIORITY: D-I.

No acquisition.

This State Forest has extensive facilities for swimming, picnicking and camping. Recreational use of many of the ponds is limited by private cottages which should be acquired in areas suitable for

intensive recreational development. If the State had a first refusal clause in each annual permit, the Department of Natural Resources would have the first opportunity to purchase the cottages.

NAME: Mystic Lake, Middle Pond and
Hamblin Pond, Barnstable.
NUMBER: 76.
PRIORITIES: A-I and D-II.
ACREAGE: 1,000.

This group of ponds in Barnstable would provide excellent fresh-water bathing in this scenic cranberry growing area. Swimming, picnicking, boating, tent sites, cabins and trailer sites should be provided in this area. People utilizing the overnight facilities would have an opportunity for fresh-water swimming in the ponds or salt-water swimming on Sandy Neck.

The acquisition in this area should extend north from River Road to Race Lane and west from Prospect Street to Bog Road and Old Mill Road.

NAME: Nagog Pond, Acton.
NUMBER: 125.
PRIORITIES: A-III and D-III.
ACREAGE: 800.

At present part of the town of Concord Water Supply, this pond should be considered for day-use recreation if this source of supply should be abandoned.

The boundaries of this area should include the existing watershed and the area to the southeast to Lowell Road and Nagog Hill Road.

NAME: Nashua River, Pepperell.
NUMBER: 103.
PRIORITIES: A-II and D-III.
ACREAGE: 650.

Acquisition along the banks of the river is recommended for its scenic and recreation potentials. Development should provide facilities for canoeing and picnicking. A parcel 1,000 feet deep on each side of the river should be acquired extending from Groton Town Forest to Routes 119 and 111.

NAME: R. C. Nickerson State Forest Park,
Brewster.
NUMBER: 5.
PRIORITY: D-I.
No acquisition.

This park is heavily utilized with limited areas left for development. Upon completion of the proposed camping areas on Cliff Lake and Higgins Pond, future development should take place around Spectacle and Lawrence ponds in Sandwich, and Mystic Lake, Middle Pond and Hamblin Pond in Barnstable, to relieve the pressure on this area.

NAME: Nissitissit River, Groton.
NUMBER: 104.
PRIORITIES: A-II and D-III.
ACREAGE: 450.

Along with the good fishing in the river, facilities for parking and picnicking would provide an added attraction for family groups. Access to this area would be most convenient from Hollis Street and Brookline Road. Acquisition of a 500-foot strip on each side of the river should extend from one half mile north of Pepperell to the New Hampshire line.

NAME: October Mountain — Goose Pond, Lee.
NUMBER: 126.
PRIORITY: A-III.
ACREAGE: 5,248.

Long-range acquisition should include land southwest of the existing holdings in Lee to unite them with the proposed Goose Pond recreation area. This would preserve a very scenic area and provide additional much-needed hunting land.

NAME: October Mountain State Forest,
Washington.
NUMBER: 25.
PRIORITY: D-I.
No acquisition.

This recreation area has some tent sites and bridle and hiking trails at the present time. Cabins and additional facilities for swimming, picnicking and tenting should be provided in this area.

NAME: Old Reservoir, Barre.
NUMBER: 77.
PRIORITIES: A-I and D-III.
ACREAGE: 2,400.

Unspoiled and undeveloped with the exception of three cottages, two of which have no access roads, this area should be acquired for

both day and overnight use with tent sites and cabins. An undeveloped primitive camping area should be made available at the north end of the Reservoir.

The boundary of this reservoir area should extend south from the southeast corner of the Phillipston Wildlife area to the intersection of Farrington Road with Williamsville Road, northwest to Hawes Hill and Hawes Hill Road, and north to the Phillipston Wildlife Area.

NAME: Otis State Forest, Sandisfield.
NUMBER: 31.
PRIORITY: D-I.
No acquisition.

No facilities are now available at Upper Spectacle Pond. This pond should be developed for day-use and Lower Spectacle Pond for overnight use. A much larger body of water can be provided at Upper Spectacle Pond by repairing the dam.

NAME: Otter River State Forest,
Winchendon.
NUMBER: 78.
PRIORITIES: A-I and D-II.
ACREAGE: 315.

Less than five miles north, on Route 2, the Beaman Pond beach and picnic area in this forest is very popular and heavily used. There is room for only limited expansion.

At the present time the federal government owns the Birch Hill Reservoir flood control area which includes Lake Dennison. This lake is now under short-term lease to the town of Winchendon, but there are no established facilities, and little or no supervision. The Department of Natural Resources should acquire this property and provide day-use facilities to relieve the present congestion at Beaman Pond.

Stoddard Pond and its watershed, east of Otter River State Forest, should be acquired to control the water supply for Beaman Pond. Water control is essential because lack of fresh water supply renders Beaman Pond unusable for swimming in mid-summer.

NAME: Peaked Cliff, Plymouth.
NUMBER: 79.
PRIORITIES: A-I and D-III.
ACREAGE: 585.

The land between Peaked Cliff and Lookout Point contains several locations where there is no development. Selection of one or two of these areas for scenic overlooks and picnic areas would help to preserve this choice location on a high bluff overlooking the sea.

NAME: Pelham Lake, Rowe.
NUMBER: 80.
PRIORITIES: A-I and D-III.
ACREAGE: 1,526.

This site is unspoiled and undeveloped with the exception of a few cottages on the shore of the lake near the road. Access is very good from Route 2 via five or six miles of hard surfaced road.

This area should extend southerly from Pond Road and Davis Mine Road to Davenport Road, with a line between the intersection of Davenport Road and Maxwell Road, and the intersection of Middletown Hill Road and Pond Road forming the western boundary. This area will include Pelham Lake, Adams Mountain and Todd Mountain.

NAME: Pierce Brook, West Brookfield.
NUMBER: 105.
PRIORITIES: A-II and D-III.
ACREAGE: 1,600.

The site of an old Indian camping ground, this is an excellent area for day use, being adjacent to Route 9 and easily accessible. There is an existing dam at Pierce Road which should be repaired. Massive ledge formations at the headwaters of Pierce Brook currently attract many tourists every summer.

The boundaries of this area should extend north from Route 9 to Lyon Road and east from Gilbertville Road to Lamberton Brook. Land south of Route 9 and Bay Road should also be acquired to the Warren town line to round out the watershed of this brook.

NAME: Pilgrim Spring State Park (the Province Lands), Provincetown.
NUMBER: 6 and 155.
PRIORITIES: A-I and D-I.
ACREAGE: 1,230.

Acquisition of the beach and dune area between these two holdings will make possible a well-rounded land-use plan of these spectacular resources.

Limited development for picnicking, hiking and nature study should be considered. Closely related is the proposal of the National Park Service for the acquisition of the Great Beach area.

NAME: Pittsfield State Forest,
 Pittsfield.

NUMBER: 26.

PRIORITY: D-I.

No acquisition.

Facilities are currently provided here for picnicking and camping. The small swimming area at Lulu Brook requires some repairs. Since this brook area has limited expansion possibilities, an additional day and overnight use area should be provided at Berry Pond.

NAME: Plum Island.

NUMBER: 147.

PRIORITIES: A-II and D-III.

ACREAGE: 1,280.

Negotiations are now under way for the transfer to the Commonwealth of a considerable portion of the island now under the jurisdiction of the U. S. Fish and Wildlife Service. Upon acquiring the property the State should develop the northerly two miles of the ocean side of the island for public use.

In addition to the refuge, property acquisition should extend northerly to the Merrimack River tidal flats and west of Old Point Road to the westerly edge of the marshlands. This acquisition will protect the approach to the beach.

NAME: Plymouth Beach, Plymouth.

NUMBER: 148.

PRIORITIES: A-II and D-III.

OCEAN FRONTAGE: 2 miles.

This long, narrow spit in Plymouth Harbor, now under town jurisdiction and partly used as a public beach, could, with some modifications, be converted to a major beach installation, possibly as a co-operative venture.

NAME: Purgatory Chasm State
 Reservation, Sutton.

NUMBER: 7.

PRIORITY: D-I.

No acquisition.

This scenic area adjacent to Sutton State Forest is heavily used. Expansion of both the parking and picnicking facilities is needed.

NAME: Robinson State Park,
Agawam.
NUMBER: 9.
PRIORITY: D-I.
No acquisition.

The day-use facilities in this heavily used park should be expanded.

NAME: Rocky Hill, Leominster.
NUMBER: 127.
PRIORITIES: A-III and D-III.
ACREAGE: 800.

Situated east of Stuart Pond and recommended for long-range consideration, Rocky Hill and the pond adjacent to it would provide for expansion of facilities as demand increases in this region.

NAME: Rocky Pond, Boylston.
NUMBER: 81.
PRIORITIES: A-I and D-II.
ACREAGE: 3,550.

Situated less than ten miles northeast of Worcester and easily accessible, this location has an excellent potential for day and overnight use in rugged country with superb panoramas from its hilltops. Swimming, boating, group and individual picnicking and tenting areas should be provided here. Longley Hill south of Rocky Pond should be included within the state park area to preserve the scenic aspects of this site.

Most of the development on Rocky Pond should take place on the easterly side because of the concentration of cottages on the west side. The land surrounding these cottages should be acquired to prevent further expansion.

Wrack Meadow, north of Rocky Pond, appears to lend itself well to the creation of another body of water by a dike and dam. The adequacy of the water supply for swimming should be investigated if an impoundment is considered. In any event, this area would provide an excellent camp ground.

The boundary of this area should follow the Northborough town line south from Green Street to Church Street and southwest to the intersection of Reservoir Road and Barney Road, west along Bar-

nard Street to Boylston Street and north on Boylston and Cross streets to Linden Street. From a point one mile northeast on Linden Street the line should extend easterly to the intersection of Lyman and Crosby roads, south on Lyman Road to Moore Lane and west to the intersection of the Northborough town line with Green Street.

NAME: Rudd Pond and Rudd Pond Brook, Becket.
NUMBER: 106.
PRIORITIES: A-II and D-III, A-III and D-III.
ACREAGE: 2,170.

There is at present no development near the northern portion of Rudd Pond. This area would be suitable for day use. Future expansion of this area would be made possible by repairing the dam on Rudd Pond Brook where the Old Baskets Shop Reservoir was located. This excellent site should be considered as an alternative for the Bulkley Dunton-Yokum Pond development.

This area, including the long-range acquisition of Rudd Pond Brook, lies between Route 8, Bennet Road, Snow Road and Y. M. C. A. Road. The more immediate acquisition should include approximately 250 acres around Rudd Pond.

NAME: Russell Pond, Russell.
NUMBER: 82.
PRIORITIES: A-I and D-II.
ACREAGE: 2,400.

Located in a scenic mountainous region, this pond has an ideal setting as a day-use and overnight-use area.

Acquisition should include land bounded by General Knox Road, Route 20, the Blandford town line and South Quarter Road.

NAME: Sandisfield State Forest,
New Marlborough.
NUMBER: 27 and 128.
PRIORITIES: D-I, A-III and D-III.
ACREAGE: 19,500.

Here is an opportunity for a major recreation area in a scenic and relatively undeveloped region. York Lake in Sandisfield State Forest has facilities at the present time for swimming and picnicking. The dam is now under repair and the swimming area should be usable shortly.

Atwater Pond, located just east of Sandisfield State Forest and surrounded with stately pines and other large trees is relatively wild and not easily accessible. It should be acquired and developed for camping under the long-range plan.

East Indies Pond, in New Marlborough, originally recommended for immediate acquisition in the Interim Report, has recently been sold and thus is now recommended for inclusion in the long-range plan for future development for primitive camping.

This area should extend southerly from Thousand Acre Swamp to the Connecticut line and east from Norfolk Road to the Sandisfield town line. Further long-range considerations should be directed toward acquisition of the intervening lands to unify these areas and scattered parcels of lands now owned.

NAME:	Sandy Neck, Barnstable.
NUMBER:	142.
PRIORITIES:	A-I and D-II.
OCEAN FRONTAGE:	Seven miles.

Situated in Sandwich and Barnstable, this tract, almost seven miles in length, offers splendid opportunities for many types of recreational activities, including bathing, fishing, hiking, nature study and camping. The plan proposes the development of the westerly end, leaving the easterly five miles in its natural state. The town of Barnstable is making a commendable effort to acquire, and retain for unspoiled preservation, a considerable portion of the Neck.

NAME:	Savoy State Forest, Savoy.
NUMBER:	28.
PRIORITY:	D-I.
	No acquisition.

Since both the day-use and overnight areas are heavily used, advantage should be taken of North Pond, South Pond and Burnett Pond for expansion of these facilities. The camping areas should have accommodations for trailers as well as tent sites.

NAME:	Sheomet Lake, Warwick.
NUMBER:	107.
PRIORITIES:	A-II and D-III.
ACREAGE:	1,550.

Sheomet Lake is well suited for both day and overnight use and should be considered for these purposes after the Moss Brook area has been fully developed.

The boundaries of this area should extend from Warwick State Forest in the north to Athol Road and from Chase Road easterly to the Royalston town line.

NAME: Silver Lake, Halifax.
NUMBER: 129.
PRIORITIES: A-III and D-III.
ACREAGE: 300.

Silver Lake is at present part of the city of Brockton water supply system. Picnicking and hunting are allowed on this watershed and there are several cottages on the perimeter. If it is not possible to acquire the Indian Pond area, it will be well to keep this body of water in mind in the event the city should, sooner or later, no longer need it for water supply purposes.

The boundaries of this area should extend from Silver Lake to Oak Grove Street and Center Street, and from the village of Silver Lake north to the pumping station road.

NAME: Skyline Drive, Route 20 to Route 2.
NUMBER: 108.
PRIORITIES: A-II and D-III.
ACREAGE: 5,165.

This scenic drive should connect Route 20 in the southern portion of Pittsfield State Forest with Mount Greylock and Route 2 in the north. The road over the Taconic Range, including Widow Whites Peak and Brodie Mountain, would provide a panorama unsurpassed in the east. Approximately twenty miles of new road would have to be constructed and seven and a half miles improved to connect Route 20 in Pittsfield and Rockwell Road on Mount Greylock. The proposed drive would connect with Beech Hill Road in New Ashford and utilize Mallory Road, Route 7, and Goodell Road for the connecting link to Rockwell Road. Sufficient acreage should be acquired under this program to prevent undesirable roadside developments from destroying the scenic and unspoiled character of the area.

NAME: South and Boot Ponds,
Plymouth.
NUMBER: 130.
PRIORITIES: A-III and D-III.
ACREAGE: 1,800.

Both of these ponds should be considered for long-range acquisition and development. Although South Pond is now utilized for water supply by Plymouth, there are cottages on the east side of the pond, and boating and fishing are allowed by permit. Boot Pond drains into South Pond, but swimming is allowed on Boot Pond when the culvert connecting them is closed. Myles Standish State Forest should be extended northerly to include the south and west shores of both South Pond and Boot Pond together with the presently owned parcel on West Pond, Gunners Exchange Pond and Flag Hill.

NAME: South Cape Beach.
NUMBER: 150.
PRIORITIES: A-III and D-III.
OCEAN FRONTAGE: One mile.

This beach in Mashpee, adjacent to Washburn Island, has some possibilities for development, provided a considerable amount of work is done to correct a steep foreshore, the result of erosion caused by along-shore currents.

Long-range acquisition and development should be considered on the basis of the feasibility of rehabilitating the hurricane-damaged forests to provide hunting, fishing and camping.

NAME: Spectacle and Lawrence Ponds,
Sandwich.
NUMBER: 83.
PRIORITIES: A-I and D-III.
ACREAGE: 1,472.

These ponds have little development in the northern portion and have good recreation potential along their sandy shores. The Division of Fisheries and Game is at present considering the acquisition of land lying north of these ponds. If this area were to be purchased and Sandy Neck were available for salt water bathing, a unique opportunity would exist here for all types of recreation and scenic attraction in a single area.

This is an excellent location for a group conservation and educational camp with salt water beaches, marshes, wildlife areas, forested areas and fresh-water beaches near by. General day use and tenting should also be provided for in this area, although the major emphasis should be placed on the group conservation camp.

The boundary of this area should extend southerly from the transmission line along Great Hill Road, northwesterly along Popple Bottom Road one half mile, southwesterly across Lawrence Pond to Pinkham Island in Spectacle Pond, and thence to the intersection of Farmersville Road and Old Hollow Road, northwesterly along Old Hollow Road to Quaker Meetinghouse Road and along this road to the transmission line, the northern boundary. A 300-foot buffer zone should extend on either side of Quaker Meetinghouse Road north of the transmission line to Route 3, where the entrance road to this park should originate.

NAME: Spencer State Forest,
Spencer.

NUMBER: 8.

PRIORITY: D-I.

No acquisition.

Limited expansion of the picnicking and swimming facilities should be provided here.

NAME: Squannacook River, Groton.

NUMBER: 109.

PRIORITIES: A-II and D-III.

ACREAGE: 1,150.

Picnicking facilities would combine with excellent fishing to make this an attractive area. Access should be provided from both Townsend Road and Shirley Road. The area north of Trap Swamp Brook should be acquired to South Street in Townsend 1,000 feet in depth on both sides of the river.

NAME: Standish Monument Reservation,
Duxbury.

NUMBER: 29.

PRIORITIES: A-I and D-I.

ACREAGE: 80.

This monument provides a scenic panorama of the Atlantic and Cape Cod. No additional facilities are needed at the present time, although additional land should be acquired for protective purposes.

NAME: Steadman Pond, Monterey.

NUMBER: 110.

PRIORITIES: A-II and D-III.

ACREAGE: 350.

This pond is suitable for additional day use in conjunction with or as an alternate to Lake Garfield if demand forces such development.

The boundaries of this area should extend westerly from Monterey Road one half mile to the north and one half mile to the south of the pond, to a line parallel to and one half mile west of Monterey Road.

NAME: Strawberry Point, Scituate.
NUMBER: 84.
PRIORITIES: A-I and D-II.
ACREAGE: 175.

This peninsula should be acquired to take advantage of the scenic rocky coast. Picnicking should be provided.

NAME: Stuart Pond, Sterling.
NUMBER: 111.
PRIORITIES: A-II and D-III.
ACREAGE: 760.

This pond, south of Leominster State Forest, should be acquired for an additional day-use area when Paradise Pond can no longer satisfy the demand. This acquisition would extend south from Leominster State Forest along Redemption Rock Trail to the intersection with East Princeton Road, east to Stuart Road and northeast to the present boundary at Hastings Road.

NAME: Sudbury Reservoir, Southborough.
NUMBER: 131.
PRIORITIES: A-III and D-III.
ACREAGE: 5,235.

Sudbury Reservoir, close to the Framingham Interchange on the Toll Road, is located between Routes 9 and 20 and east of Route 85. East of the Reservoir is a heavily wooded area privately owned and posted as a game preserve. Downstream from the main reservoir are three large reservoirs forming the headwaters of the Sudbury River. Within one and one half miles of the main reservoir, the historic Wayside Inn is being restored.

Based on the ease of access by major highways, its proximity to highly populated areas and the large unspoiled areas adjoining the lands now controlled by the Metropolitan District Commission, the preservation of this area for recreational, historic and scenic interest is highly desirable.

The high knolls on the southerly end of the reservoir and the Pine Hill section on the west could be utilized for day-use, such as picnicking, boating and fishing. The right of the residents of Framingham and Marlborough to fish along the shores of this reservoir at the present time should be extended to the public in general. Facilities consistent with a sound water policy should be developed in this area.

A considerable area of land east and north of the Sudbury Reservoir should be acquired since residential development is rapidly moving into this area. At the present time, an estate is being surveyed for subdivision purposes.

The city of Marlborough has displayed interest in obtaining land from the M. D. C. bordering Sudbury Reservoir for extension of the city airport. This proposal should be thoroughly investigated, since a portion of this proposed recreation area would be destroyed if it is carried out.

NAME: Sudbury River, Wayland.
NUMBER: 85.
PRIORITIES: A-I and D-II.
ACREAGE: 20.

The increase in the number of boating enthusiasts and the proximity of this area to Metropolitan Boston makes this location an excellent spot for a marina. Since the Old Sudbury Road has been relocated, the abandoned road can be widened for automobile and trailer parking. A boathouse, boat launching ramp and permanent docking facilities should be provided here.

NAME: Taconic Range, Williamstown.
NUMBER: 132.
PRIORITIES: A-III and D-III.
ACREAGE: 14,800.

This long-range acquisition should eventually include the scenic mountain range paralleling the New York State line. This rugged region should be acquired for preservation of scenic values as well as hunting, fishing and hiking. The boundary should extend southerly from the Vermont line along the New York State line through Williamstown and Hancock about one and one half miles in depth, connecting with the proposed acquisition for the Skyline Drive.

NAME: Taconic Trail State Park,
Williamstown.
NUMBER: 86.
PRIORITY: A-I.
ACREAGE: 1,450.

This scenic area should be expanded to include several sections adjacent to the Taconic Trail which are in immediate danger of development and lumbering operations.

A buffer strip 500 feet wide on each side of the Taconic Trail should be acquired between the New York line and Cold Spring Road. Another buffer area 500 feet deep on the west side and 2,000 feet deep on the east side of Cold Spring Road, between Sweet Brook and Buxton Hill, should also be acquired.

NAME: Tolland State Forest, Tolland.
NUMBER: 30.
PRIORITIES: A-II and D-I.
ACREAGE: 375.

This forest now has facilities for swimming, picnicking and camping on Otis Reservoir. There is a great deal of room for expansion in this area, provided suitable arrangements can be made with the power company which uses this reservoir for maintaining its water supply during the recreation season. Additional day-use facilities, including boating as well as overnight use, should be considered.

Additional acreage should be acquired, especially at the south end of the reservoir, to round out the boundaries.

NAME: Upper Naukeage Lake, Ashburnham.
NUMBER: 133.
PRIORITIES: A-III and D-III.
ACREAGE: 925.

Upper Naukeage Lake in Ashburnham is currently a part of the Ashburnham water supply system, and should be considered for recreation if this supply is abandoned. This acquisition should extend to the north beyond the existing watershed to unite with Ashburnham State Forest.

NAME: Wachusett Mountain State Reservation,
Westminster.
NUMBER: 87.
PRIORITIES: A-I and D-II.
ACREAGE: 280.

Wachusett Mountain is a major attraction for sightseers. The panorama from the top of the mountain is outstanding. Noyes Pond, west of the reservation, appears to have excellent potential for swimming, picnicking and boating. Overnight use can then be provided within the reservation on a small pond located there.

The present boundary of the reservation should be extended half a mile northerly, thence westerly through Church Rock to Davis Road, southerly to Lanes Road, not including the farm land north of this road, easterly to the existing boundary of the reservation. This will include the watershed of Noyes Pond and combine this area with the reservation.

NAME: Wahconah Falls State Park,
 Dalton.
NUMBER: 32.
PRIORITY: D-I.
No acquisition.

An unspoiled area with spectacular falls, this park has room for limited expansion of existing picnicking facilities.

NAME: Walden Pond State Reservation,
 Lincoln.
NUMBER: 33.
PRIORITIES: D-I, A-III and D-III.
ACREAGE: 1,050 (long range).

State owned, but under the jurisdiction of the Middlesex county commissioners, this pond has facilities for swimming and picnicking that are in constant demand. The present swimming area is very much overused, with destruction of the park area taking place along Walden Road. Since expansion of the present swimming area is impossible without further destruction of the park atmosphere, a new swimming and picnicking area should be provided on the north side of the pond. This development would be on land now owned by the State.

Under the long-range acquisition program, land should be acquired south of Route 2 and east of Walden Pond to include Goose Pond and Sandy Pond. Sandy Pond is now a part of the Lincoln and Concord water supply systems. This would also include Pine Hill and Cedar Hill and provide a scenic area easily accessible to the highly concentrated population of Metropolitan Boston.

NAME: Walker Pond, Sturbridge.
NUMBER: 88.
PRIORITIES: A-I and D-II.
ACREAGE: 2,745.

Located within a mile of the Massachusetts Turnpike interchange with Route 20 and Route 15, a portion of this area is owned by a forestry company and a Girl Scout Camp. The terrain on the west side of the pond is very steep with several rock outcroppings in both Walker Mountain and Hitchcock Mountain to the north. The area surrounding Walker Pond has excellent vegetation and good potential for day and overnight use.

Another water body can be provided by damming the stream adjacent to Hitchcock Mountain. This would make an excellent area for tent sites and cabins on the easterly side with a view of the scenic rocky ledges on the west side of the new lake. This park area should extend north from the Massachusetts Turnpike to the East Brookfield town line with Boston Road on the west and Podunk Road on the east.

NAME: Wallis Reservoir, Douglas.
NUMBER: 134.
PRIORITIES: A-III and D-III.
ACREAGE: 350.

In addition to acquisition around Wallum Lake, Crystal Lake and Manchaug Pond, long-range consideration is recommended for the southwestern side of Wallis Reservoir. This side of the reservoir is undeveloped at present and has potential for day use as demand increases. This parcel should extend from Wallis Reservoir to Douglas State Forest on the south.

NAME: Wallum Lake, Douglas.
NUMBER: 89.
PRIORITIES: A-I and D-II.
ACREAGE: 470.

Presently a part of Douglas State Forest, Wallum Lake is strategically located within twenty miles of Worcester and Providence and should be developed as a major recreation area by immediate acquisition along its shores. Heavily used by both Massachusetts and Rhode Island people, it is very popular for swimming, picnicking, boating and fishing and is in need of expansion. Acquisition should extend to Wallum Pond Street on the east, High Street on the west, and the Rhode Island line on the south. This acquisition

should not include the housing subdivision being developed on the east side of the lake, but should curtail any further expansion in this region. A co-operative effort with Rhode Island should be attempted to prevent any further development around this lake, either in Rhode Island or Massachusetts.

Other acquisitions adjacent to Douglas State Forest are recommended under Crystal Lake (No. 96) and Wallis Reservoir (No. 134).

NAME: Warwick State Forest,
Warwick.
NUMBER: 135.
PRIORITY: A-III.
ACREAGE: 2,200.

This long-range acquisition will tie proposed earlier acquisition at Moss Brook to the existing parcels of Warwick State Forest.

The overall acquisition should extend east from Flagg Road to Orange Road and south from Mount Grace State Forest to Hockanum Road and the Warwick State Forest boundary. This will include the watershed for the proposed lake on Moss Brook.

NAME: Washburn Island, Falmouth.
NUMBER: 143.
PRIORITIES: A-I and D-I.
OCEAN FRONTAGE: 7,000 feet.

This island, in the town of Falmouth, has splendid beach frontage which, with proper approach facilities, could be very effectively developed. Of the 7,000 feet of beach, 4,500 feet is on the ocean and 2,500 feet is on Waquoit Bay.

It has been rumored that this island is being considered for cottage development; therefore immediate acquisition is imperative.

NAME: Wendell State Forest, Wendell.
NUMBER: 34.
PRIORITIES: A-II and D-I.
ACREAGE: 640.

Immediately south of Route 2, Ruggles Pond and Wickett Pond, in Wendell State Forest, lie in an area extremely well adapted to day and overnight use. Although these are both shallow ponds, they are suitable for swimming. The flowage area of Ruggles Pond could possibly be increased by making alterations to the present dam and spillway.

The land between the major part of the forest and the two western parcels should be acquired to unite all this park land. To protect the approach to this area from the east, the private parcels along Saxon Bridge Road should be acquired, as well as a 500-foot strip along each side of Montague Road between Depot Road and the forest boundary.

NAME: Westfield River-Goss Heights,
Huntington.
NUMBER: 113.
PRIORITIES: A-II and D-III.
ACREAGE: 495.

The Department owns some land on the east side of the Westfield River, but this should be expanded in all directions to give further protection to this scenic area.

A small natural pool in the river, which is heavily used, can be expanded by constructing a small, low dam immediately below it to develop this site more intensively for swimming and picnicking.

NAME: Westfield River-Upper Wilderness,
Chesterfield.
NUMBER: 112.
PRIORITIES: A-II and D-III.
ACREAGE: 1,300.

This relatively wild and inaccessible area on the east branch of the Westfield River should be opened by providing parking at both the north and south ends and building foot trails for access. Hiking, fishing and hunting should be allowed in this area.

This area should extend northerly from West Chesterfield to the Swift River, 1,000 feet on each side of the Westfield River:

NAME: West Island, Fairhaven.
NUMBER: 144.
PRIORITIES: A-I and D-III.
OCEAN FRONTAGE: 2 miles.

Located on Buzzards Bay, this island has two and one half miles of isolated beach which, with 350 acres of upland, offers fine opportunities for bathing, picnicking, camping and boating.

Since this property is now on the market and is being developed with summer cottages, early action is imperative.

NAME: Wheeler Pond, Warwick.
NUMBER: 136.
PRIORITIES: A-III and D-III.
ACREAGE: 665.

Acquisition of this site should be considered in the event that the proposed lake on Moss Brook is not created. The eastern boundary of this area should extend southerly from Hockanum Road, Orange Road and Brush Valley Road along the Orange-Warwick town line to the southeast corner of Warwick and westerly along the south line of Warwick to the Warwick State Forest.

NAME: Whitehall State Park,
Hopkinton.
NUMBER: 90.
PRIORITIES: A-I and D-II.
ACREAGE: 1,100.

This park is strategically located on Route 135. The reservoir has an exceptionally interesting shore line bordered with coniferous vegetation. At present boating facilities only are provided, but expansion should be considered to provide for picnicking and swimming on the east side of the reservoir.

Although the water is rather shallow on this side, a swimming area can be provided by excavating sand from the bottom of the lake and constructing a beach. Extending the existing boundary to 500 feet east of Winter Street and southwesterly to Upton State Forest, with Spring Street as the western boundary, would provide sufficient area around this lake for recreational use. Overnight use, including tent and trailer sites, can be developed at Dean Pond in Upton State Forest. The existing boundary adjacent to this spring-fed pond should be extended easterly to Hopkinton Road and Hagar Road.

NAME: Willard Brook State Forest,
Ashby.
NUMBER: 139.
PRIORITIES: A-I and D-I.
ACREAGE: 30.

Additional land should be acquired along Turnpike Road in the vicinity of Trap Falls. This would allow expansion of park facilities in this scenic area which are urgently needed, especially for picnickers. Another picnic area should be provided in the Valley Road portion of this forest to relieve pressure on the other areas. Additional day and overnight facilities should be provided in the vicinity of the Wright ponds.

NAME: Windsor State Forest,
Windsor.
NUMBER: 35
PRIORITY: D-I.
No acquisition.

This area now has facilities for swimming, picnicking and tenting, together with trailer sites. Windsor Jams, a deep granite flume, is the major scenic attraction. Picnicking facilities and tent sites should be expanded.

NAME: Wingaersheek Beach, Gloucester.
NUMBER: 149.
PRIORITIES: A-II and D-III.
OCEAN FRONTAGE: One-half mile.

This town beach has good possibilities for expansion. By acquiring land north of Route 128, east of Concord Street and west of Atlantic Street, an excellent state park would be provided with seashore frontage. A suitable approach road could be provided from Route 128.

NAME: Wright Ponds, Ashby.
NUMBER: 91.
PRIORITIES: A-I and D-II.
ACREAGE: 890.

Early acquisition and development is recommended to relieve the crowded conditions at Willard Brook. The acquired parcel should extend southerly from the present holding along State Road to its intersection with the Worcester County line, westerly along the county line to Rindge Road and northeasterly to the southeast corner of the Camp Middlesex (4-H camp) property.

NAME: Yokum Pond, Becket.
NUMBER: 45.
PRIORITIES: A-II and D-III.
ACREAGE: 882.

Yokum Pond should be considered for day use in the event that the proposed facilities at Bulkley Dunton Pond are unable to provide adequately for the demands on this area. There are now approximately ten cottages on this area, several of which are under a single ownership.

This acquisition should be bounded on the northwest by Yokum Road, on the east by a line along the easterly edge of the Yokum Pond watershed, and on the south and west by October Mountain State Forest.

APPENDIX C.

INVENTORY OF PUBLIC LANDS OF CONSERVATION
AND RECREATION SIGNIFICANCE.

MASSACHUSETTS DEPARTMENT OF NATURAL RESOURCES.

I. STATE PARKS.

Number.	NAME	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
1	Pilgrim Springs State Park . . .	Barnstable	Truro	1,000
2	Balance Rock State Park . . .	Berkshire	Lanesborough	140
3	Clarksburg State Park . . .	Berkshire	Clarksburg	364
4	Lindon Bates Memorial Park . . .	Berkshire	Hancock	424
5	Taconic Trail State Park . . .	Berkshire	Williamstown	400
6	Wahconah Falls State Park . . .	Berkshire	{ Windsor Dalton Hinsdale }	47
7	Dighton Rock State Park . . .	Bristol	Berkley	85
8	Lloyd Memorial State Park . . .	Bristol	Dartmouth	220
9	Martha's Vineyard Beach State Park	Dukes	Oak Bluffs	56
10	Bradley W. Palmer State Park . . .	Essex	Topsfield	721
11	Plum Island State Park . . .	Essex	Ipswich	67
12	John C. Robinson State Park . . .	Hampden	West Springfield	1,088
13	Joseph Allen Skinner State Park . .	Hampshire	South Hadley	375
14	Ashland State Park . . .	Middlesex	Ashland	392
15	Cochituate State Park . . .	Middlesex	{ Framingham Wayland }	1,031
16	Hopkinton State Park . . .	Middlesex	{ Hopkinton Ashland }	746
17	Walden Pond State Park . . .	Middlesex	Concord	92
18	Whitehall State Park . . .	Middlesex	Hopkinton	849
19	Cushing Memorial State Park . . .	Plymouth	Scituate	8
20	Myles Standish State Park . . .	Plymouth	South Duxbury	22
21	Lake Quinsigamond State Park . . .	Worcester	Worcester	25
	Total	- - -	- - - - -	8,152

II. STATE FORESTS.

1	Barnstable State Forest . . .	Barnstable	Barnstable	58
2	Brewster State Forest . . .	Barnstable	Brewster	18
3	Falmouth State Forest . . .	Barnstable	Falmouth	18
4	R. C. Nickerson State Forest . . .	Barnstable	Brewster	1,778
5	Sandwich State Forest . . .	Barnstable	Sandwich	45
6	Shawnee State Forest . . .	Barnstable	{ Bourne Sandwich }	1,648
7	Bash Bish State Forest . . .	Berkshire	{ Mount Washington Lee }	417
8	Beartown State Forest . . .	Berkshire	{ Monterey Great Barrington }	8,110
9	Beckett State Forest . . .	Berkshire	Becket	633
10	Campbell's Falls State Forest . . .	Berkshire	New Marlborough	3

II. STATE FORESTS — *Continued.*

Number.	NAME	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
11	Clarksburg State Forest . . .	Berkshire	Clarksburg	2,802
12	East Mountain State Forest . . .	Berkshire	North Adams	
13	Mohawk Trail State Forest . . .	Berkshire	Great Barrington	1,552
			Charlemont	
14	Monroe State Forest	Berkshire	Hawley	6,246
			Savoy	
			Florida	
15	October Mountain State Forest . . .	Berkshire	Monroe	4,029
			Rowe	
			Becket	
16	Otis State Forest	Berkshire	Lee	13,723
			Lenox	
			Washington	
17	Peru State Forest	Berkshire	Becket	3,475
			Otis	
18	Pittsfield State Forest	Berkshire	Sandisfield	2,053
			Tyringham	
19	Sandisfield State Forest	Berkshire	Peru	5,421
			Middlefield	
20	Savoy State Forest	Berkshire	Worthington	3,999
			Hancock	
21	Swann State Forest	Berkshire	Lanesborough	10,956
			Pittsfield	
22	Windsor State Forest	Berkshire	New Marlborough	987
			Sandisfield	
23	Tolland State Forest	Berkshire	Adams	1,545
			Florida	
24	Attleboro State Forest	Berkshire	North Adams	2,919
			Savoy	
25	Berkley State Forest	Berkshire	Monterey	26
			Savoy	
26	Freetown State Forest	Berkshire	Windsor	6
			Otis	
27	Freetown-Fall River State Forest . . .	Berkshire	Blandford	9
			Tolland	
28	Raynham State Forest	Berkshire	Attleboro	5,378
			Berkley	
29	Rehoboth State Forest	Berkshire	Freetown	16
			Fall River	
30	Taunton State Forest	Berkshire	Freetown	137
			Raynham	
31	Martha's Vineyard State Forest . . .	Dukes	Rehoboth	29
			Taunton	
32	Andover State Forest	Essex	Edgartown	4,297
			West Tisbury	
33	Boxford State Forest	Essex	Andover	43
			Tewksbury	
34	Georgetown-Rowley State Forest . . .	Essex	Boxford	656
			North Andover	
35	Lynnfield State Forest	Essex	Middleton	1,060
			Boxford	
36	Harold Parker State Forest	Essex	Georgetown	7
			Ipswich	
37	Rowley State Forest	Essex	Rowley	2,987
			Lynnfield	
38	Willowdale State Forest	Essex	Andover	13
			North Andover	
39	Buckland State Forest	Franklin	Rowley	2,061
			Ipswich	
40	Colrain State Forest	Franklin	Topsfield	85
			Buckland	
41	Erving State Forest	Franklin	Colrain	1,240
			Heath	
42	Leverett State Forest	Franklin	Northfield	5,138
			Orange	
43	Leyden State Forest	Franklin	Warwick	91
			Wendell	
44	Montague State Forest	Franklin	Leverett	60
			Leyden	
			Montague	43

II. STATE FORESTS — *Continued.*

Number.	NAME.	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
45	Mount Grace State Forest . . .	Franklin	Warwick	1,447
46	New Salem State Forest . . .	Franklin	New Salem	70
47	Northfield State Forest . . .	Franklin	Northfield	401
48	Shelburne State Forest . . .	Franklin	Shelburne	49
49	Shutesbury State Forest . . .	Franklin	Shutesbury	791
50	Wendell State Forest . . .	Franklin	Wendell	6,610
51	Conway State Forest . . .	Franklin	Conway	1,648
52	Hawley State Forest . . .	Hampshire	Williamsburg	3,835
53	Brimfield State Forest . . .	Hampden	Hawley	3,104
54	Chester-Blandford State Forest . . .	Hampden	Plainfield	2,531
55	Ludlow State Forest . . .	Hampden	Brimfield	51
56	Tolland-Granville State Forest . . .	Hampden	Blandford	2,247
57	Huntington State Forest . . .	Hampden	Chester	674
58	D. A. R. State Forest . . .	Hampshire	Ludlow	1,229
59	Middlefield State Forest . . .	Hampshire	Granville	404
60	Pelham State Forest . . .	Hampshire	Tolland	24
61	Worthington State Forest . . .	Hampshire	Huntington	175
62	Billerica State Forest . . .	Middlesex	Montgomery	376
63	Carlisle State Forest . . .	Middlesex	Ashfield	58
64	Hopkinton State Forest . . .	Middlesex	Goshen	100
65	Lowell-Dracut State Forest . . .	Middlesex	Middlefield	967
66	Marlborough State Forest . . .	Middlesex	Pelham	76
67	Townsend State Forest . . .	Middlesex	Worthington	2,714
68	Shirley State Forest . . .	Middlesex	Billerica	91
69	Sudbury State Forest . . .	Middlesex	Carlisle	234
70	Willard Brook State Forest . . .	Middlesex	Hopkinton	1,737
71	Nantucket State Forest . . .	Nantucket	Dracut	137
72	Foxborough State Forest . . .	Norfolk	Lowell	800
73	Franklin State Forest . . .	Norfolk	Marlborough	843
74	Medfield State Forest . . .	Norfolk	Stow	45
75	Wrentham State Forest . . .	Norfolk	Sudbury	1,064
76	Bridgewater State Forest . . .	Plymouth	Ashby	61
77	Carver State Forest . . .	Plymouth	Nantucket Island	10
78	Kingston State Forest . . .	Plymouth	Foxborough	130
79	Myles Standish State Forest . . .	Plymouth	Franklin	11,578
80	West Bridgewater State Forest . . .	Plymouth	Wrentham	252
81	Ashburnham State Forest . . .	Worcester	Plainville	1,574
82	Barre State Forest . . .	Worcester	Wrentham	158
83	Douglas State Forest . . .	Worcester	Bridgewater	3,234
84	Fitchburg State Forest . . .	Worcester	Carver	37
85	Holden State Forest . . .	Worcester	Kingston	55
86	Hubbardston State Forest . . .	Worcester	Carver	1,129
87	Lancaster State Forest . . .	Worcester	Plymouth	90
88	Leominster State Forest . . .	Worcester	West Bridgewater	3,518
89	Massachusetts Federation of Women's Clubs State Forest . . .	Worcester	Ashburnham	1,001
90	North Brookfield State Forest . . .	Worcester	Gardner	40
91	Oakham State Forest . . .	Worcester	Westminster	601
92	Otter River State Forest . . .	Worcester	Barre	832

II. STATE FORESTS — *Concluded.*

Number.	NAME.	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
93	Oxford State Forest	Worcester	Oxford	29
94	Paxton State Forest	Worcester	Paxton	45
95	Petersham State Forest	Worcester	Athol	510
			Petersham	
			Orange	
96	Royalston State Forest	Worcester	Royalston	871
97	Rutland State Forest	Worcester	Rutland	
98	Spencer State Forest	Worcester	Spencer	1,189
99	Sutton State Forest	Worcester	Sutton	596
100	Templeton State Forest	Worcester	Hubbardston	665
			Templeton	
			Hopkinton	
101	Upton State Forest	Worcester	Northbridge	2,646
			Upton	
102	Warwick State Forest	Worcester	Warwick	4,567
103	West Brookfield State Forest	Worcester	West Brookfield	129
104	Westminster State Forest	Worcester	Westminster	518
105	Winchendon State Forest	Worcester	Winchendon	178
	Total	- - -	- - - - -	166,659

III. STATE FOREST NURSERIES.

1	Amherst State Nursery	Hampshire	Amherst	16
2	Bridgewater State Nursery	Plymouth	Bridgewater	15
3	Clinton State Nursery	Worcester	Clinton	21
			Sterling	
	Total	- - -	- - - - -	52

IV. STATE FOREST FIRE TOWER STATIONS.

53 towers located on state, municipal and private lots.

V. DIVISION OF MARINE FISHERIES.

1	Oak Bluffs State Lobster Hatchery .	Dukes	Oak Bluffs	7
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VI. DIVISION OF FISHERIES AND GAME.

	A. State Fish Hatcheries:			
1	East Sandwich State Fish Hatchery.	Barnstable	East Sandwich	18
2	Sandwich State Fish Hatchery . .	Barnstable	Sandwich	25
3	Montague State Fish Hatchery . .	Franklin	Montague	71
4	Sunderland State Fish Hatchery . .	Franklin	Sunderland	63
5	Palmer State Fish Hatchery . . .	Hampden	Palmer	299
6	Stockwell (Merrill) Ponds	Worcester	Sutton	221
7	Sutton State Fish Hatchery	Worcester	Sutton	23
	Total	- - -	- - - - -	720

VI. DIVISION OF FISHERIES AND GAME — *Concluded.*

Number.	NAME.	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
B. State Game Farms:				
1	East Sandwich State Game Farms . .	Barnstable	East Sandwich	133
2	Wilbraham State Game Farm	Hampden	Wilbraham	245
3	Ayer State Game Farm	Middlesex	Ayer	92
4	Marshfield State Game Farm	Plymouth	Marshfield	50
	Total	- - -	- - - - -	520
C. Wildlife Sanctuaries:				
1	Billingsgate Island	Barnstable	Wellfleet Harbor	2
2	Edw. Howe Forbush Wildlife Reserva- tion.	Berkshire	Hancock	410
3	Penikese Island	Dukes	Buzzard's Bay	100
4	Boxford Wildlife Reservation	Essex	Boxford	334
5	Knight Wildlife Reservation	Essex	Rockport	11
6	Henry Cabot Lodge Bird Sanctuary . .	Essex	Nahant	1
7	Ram Island Sanctuary	Essex	Salisbury	20
8	Isaac Sprague Bird Sanctuary (Carr Island).	Essex	Salisbury	110
9	Grace A. Robson Wildlife Sanctuary . .	Hampden	Westfield	62
10	Ram Island	Plymouth	Mattapoisett	2
11	Minn's Wildlife Sanctuary (Little Wachusett Mountain).	Worcester	Princeton	138
12	Watatic Mountain Wildlife Sanctuary	Worcester	{ Ashburnham Ashby }	139
	Total	- - -	- - - - -	1,329
D. Wildlife Management Areas (open to Hunting and Fishing):				
1	Rowley March Wildlife Management Area.	Essex	Rowley	17
2	West Meadows Wildlife Management Area.	Plymouth	{ West Bridgewater Concord }	205
3	Pantry Brook Wildlife Management Area.	Middlesex	Sudbury	377
4	Peru Wildlife Management Area	Berkshire	Peru	500
5	Westborough Wildlife Management Area.	Worcester	{ Westborough Phillipston }	174
6	Barre-Phillipston Wildlife Manage- ment Area.	Worcester	Barre	840
	Total	- - -	- - - - -	2,113
E. Other Fish and Game Holdings:				
1	Southeast District Headquarters . . .	Barnstable	Bourne	35
2	District Headquarters	Berkshire	Dalton	2
3	Northeast District Headquarters . . .	Middlesex	North Acton	1.5
				38.5
	Total	- - -	- - - - -	4,720.5

SPECIAL STATE RESERVATIONS.

(Special Commissions—Joint State and County Jurisdiction)

1	Mount Everett State Reservation . .	Berkshire	{ Mount Washington Adams Cheshire }	815
2	Mount Greylock State Reservation . .	Berkshire	{ New Ashford North Adams Williamstown }	8,600
3	Mount Sugarloaf State Reservation . .	Franklin	Deerfield	89

SPECIAL STATE RESERVATIONS — CONCLUDED.

Number.	NAME.	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
4	Deer Hill State Reservation . . .	Hampshire	Cummington Plainfield	259
5	Mount Tom State Reservation . . .	{ Hampden Hampshire }	Holyoke East Hampton	1,679
6	Walden Pond State Reservation . . .		Northampton	144
7	Purgatory Chasm State Reservation .	Middlesex	Concord	80
8	Wachusett Mountain State Reserva- tion.	Worcester	Sutton Princeton Westminster	1,629
	Total	- -	- - - - -	13,295

MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS.

I. DIVISION OF OCEAN BEACHES.

1	Horseneck Beach	Barnstable	Westport	520
2	Province Lands	Barnstable	Provincetown	3,810
3	Scusset Beach	Barnstable	Sandwich	500
4	Salisbury Beach	Essex	Salisbury	521
	Total	- -	- - - - -	5,351

II. DIVISION OF WATERWAYS.

A. Great Ponds:

119 ponds have been established as Great Ponds (December, 1955). Minimum area is 10 acres.

M. D. C. LAND WITHIN METROPOLITAN PARKS DISTRICT.

I. MAJOR FOREST, RIVER, STREAM AND VALLEY RESERVATIONS.

1	Breakheart Reservation	{ Essex Middlesex }	Saugus Wakefield	621.85
2	Middlesex Fells Reservation	Middlesex	Malden Medford Melrose Stoneham Winchester Braintree Canton Milton Quincy Randolph	2,165
3	Blue Hills Reservation	Norfolk		5,930

II. OTHER M. D. C. PARK RESERVATIONS.

Approximate	- - -	- - - - -	2,780
Total (approximate)	- - -	- - - - -	11,500

III. MILES OF WATER FRONTAGE (OCEAN AND BAYSIDE BEACHES).

Number.	NAME	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
				Miles
1	Lynn Shore	Essex	{ Lynn Swampscott }	1.5
2	Nahant Beach	Essex	Nahant	2.93
3	Wollaston Beach	Norfolk	Quincy	2.19
4	Nantasket Beach	Plymouth	Hull	1.02
5	Malibu Beach	Suffolk	Boston (Dorchester)	.49
6	Marine Park	Suffolk	Boston (South Boston)	1.95
7	Orient Heights Beach	Suffolk	Boston (East Boston)	.47
8	Revere Beach	Suffolk	Revere	2.74
9	Tenanc Beach	Suffolk	Boston (Dorchester)	.23
10	Winthrop Beach	Suffolk	Winthrop	1.71
11	World War Memorial Park	Suffolk	Boston (East Boston)	.51
	Total	- - -	- - - - -	15.74

OTHER MAJOR PUBLIC AND SEMIPUBLIC LANDS.

I. PUBLIC WATER SUPPLY LANDS.

	A. M.D.C. Waterlands outside the Metropolitan Parks District:			
1	Swift Watershed (Quabbin Reservoir)	{ Franklin Hampshire }	{ New Salem Shutesbury Belchertown Pelham Ware Hardwick Petersham Sudbury }	80,960
2	Sudbury Watershed	Middlesex	{ Barre Hubbardston Oakham Rutland Boylston West Boylston Clinton Sterling }	5,235.2
3	Ware Watershed	Worcester		21,120
4	Wachusett Reservoir Watershed	Worcester		10,808.8
	Total	- - -	- - - - -	118,124
	B. Other Municipalities	- - -	- - - - -	98,149
	Total	- - -	- - - - -	216,273

II. TOWN FORESTS.

	139 Town Forests	- - -	- - - - -	41,571
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III. TRUSTEES OF RESERVATIONS LAND.

1	Lowell-Holly Reservation	Barnstable	Mashpee	130
2	Monument Mount Reservation	Berkshire	Great Barrington	256.5
3	Bartholomew's Cobble	Berkshire	Sheffield	30
4	Chesterwood	Berkshire	Stockbridge	18
5	Mission House	Berkshire	Stockbridge	.50

Number.	NAME.	LOCATION.		Total Acreage (includes Water).
		County.	City of Town.	
6	Richard T. Crane, Jr., Memorial Res- ervation.	Essex	Ipswich	1,239
7	Halibut Point	Essex	Rockport	12.25
8	Magnolia Shore	Essex	Gloucester	13
9	Misery Islands	Essex	Salem (Shore Island)	80
10	Mount Ann Park	Essex	Gloucester	65
11	Old Town Hill	Essex	Newbury	111
12	Orne Island (Brown Island)	Essex	Marblehead	5
13	Pine and Hemlock Knoll	Essex	Wenham	14
14	Charles W. Ward Reservation	Essex	Andover	276
15	Dinosaur Footprints	Hampden	Holyoke	7.50
16	William Cullen Bryant Homestead	Hampshire	Cummington	240
17	Chesterfield Gorge	Hampshire	Chesterfield	52
18	Petticoat Hill	Hampshire	Williamsburg	60
19	Old Manse	Middlesex	Concord	8
20	Rocky Narrows	Middlesex	Sherborn	39
21	Governor Hutchinson's Field	Norfolk	Milton	10
22	Medfield Rhododendrons	Norfolk	Medfield	90
23	Rocky Woods	Norfolk	Medfield	410.25
24	Whitney and Thayer Woods	{ Norfolk Plymouth	{ Cobasset Hingham	{ 733
25	Holmes Reservation	Plymouth	Plymouth	20
26	Redemption Rock	Worcester	Princeton	.25
27	Elliot Laurel Reservation	Worcester	Phillipston	25
28	Royalston Falls	Worcester	Royalston	205
	Total	- - -	- - - - -	4,204.25

IV. MASSACHUSETTS AUDUBON SOCIETY WILDLIFE SANCTUARIES.

1	Tern Island (Chatham Coast)	Barnstable	Chatham	10
2	Sampson's Island	Barnstable	Cotuit	16
3	Pleasant Valley	Berkshire	Lenox	640
4	Ipswich River	Essex	{ Topsfield Wenham Hamilton	{ 2,000
5	Marblehead Neck	Essex	Marblehead	15
6	Nahant Thicket	Essex	Nahant	4
7	Arcadia	Hampshire	Northampton	300
8	Drumlin Farm	Middlesex	Lincoln	177
9	Rocky Knoll	Norfolk	Milton	1
10	Moose Hill	Norfolk	Sharon	250
11	Cook's Canyon	Worcester	Barre	35
	Total	- - -	- - - - -	3,448

FEDERAL GOVERNMENT PROPERTY IN MASSACHUSETTS.

I. DEPARTMENT OF AGRICULTURE.

1	Hopkins Memorial Demonstration Forest.	Berkshire	- - - - -	1,600.
2	Other Holdings	- - -	- - - - -	51.3
	Total	- - -	- - - - -	1,651.3

II. DEPARTMENT OF DEFENSE.

Number.	NAME.	LOCATION.		Total Acreage (includes Water).
		County.	City or Town.	
	A. Corps of Engineers, Civil:			
1	Cape Cod Canal	{ Barnstable Plymouth Plymouth	{ Bourne Sandwich Wareham	1,183
2	Knightville Reservoir Flood Control Area.	Hampshire	- - - - -	2,533
3	Engineering Dock and Garage . .	Suffolk	Boston	4
4	Birch Hill Reservoir Flood Control Area.	Worcester	{ Royalston Templeton Winchendon	4,394
5	Tully Reservoir Flood Control Area .	{ Franklin Worcester	{ Orange Athol Royalston	1,300
	Total	- - -	- - - - -	9,419

III. DEPARTMENT OF INTERIOR.

	A. Wildlife Sanctuaries:			
1	Monomoy Wildlife Refuge . . .	Barnstable	Chatham	2,921
2	Parker River National Wildlife Refuge	Essex	{ Newbury Rowley Ipswich	6,405
3	Great Meadows National Wildlife Refuge.	Middlesex	Concord	210
	B. Fish Hatcheries and Research Station:			
1	Berkshire Trout Hatchery . . .	Berkshire	Hartsville	137
2	North Attleborough Fish Hatchery .	Bristol	North Attleborough	263
3	Woods Hole Federal Marine Research Station.	Barnstable	Woods Hole	4
	C. Historic Sites:			
1	Salem Maritime National Historic Site	Essex	Salem	Unknown
2	The Adams National Historic Site .	Norfolk	Quincy	4.05
	D. Other Holdings	- - -	- - - - -	2,980.95
	Total	- - -	- - - - -	12,930.0

FEDERAL SURPLUS LANDS DECLARED UP FOR DISPOSAL.

(General Services Listing)

1	Gooseberry Neck Fire Control Station	Bristol	Westport	6.5
2	Misham Point Military Reservation	Bristol	Dartmouth	26.
3	Gay Head Lifeboat Station . . .	Dukes	Chilmark	.74
4	Marine Hospital	Dukes	Martha's Vineyard	5.5
5	Bedford Veteran's Administration Hospital (portion).	Middlesex	Bedford	43.4
6	Squantum Naval Air Station . . .	Norfolk	Quincy	600.
7	Brant Rock Lifeboat Station . . .	Plymouth	Marshfield	.25
8	Brockton Veteran's Administration Hospital (portion).	Plymouth	Brockton	44.
9	Peddock's Island (portion) . . .	Plymouth	Boston Harbor	88
10	Plymouth Outlying Airfields . . .	Plymouth	- - - - -	-
11	East Boston National Guard Site .	Suffolk	Boston	4.2
12	George's Island	Suffolk	Boston Harbor	28
13	Lovell's Island	Suffolk	Boston Harbor	61.7
14	U. S. Naval Fuel Annex	Suffolk	Boston	2.31
15	Birch Hill Reservation	Worcester	Templeton	1,200.
16	Rutland Heights Veteran's Administration Hospital.	Worcester	Rutland	26.8
	Total	- - -	- - - - -	2,137.4

APPENDIX D.

EXISTING AND PROPOSED FLOOD CONTROL PROJECTS
WITH RECREATION POTENTIAL.*Birch Hill Dam, Connecticut River Basin.*

Located in Winchendon, 4,500 acres has been leased (for twenty-five years beginning in 1952) to the Massachusetts Division of Fisheries and Game. The town of Winchendon has a short-term lease on Lake Denison for recreational purposes, although they provide very limited facilities. This area should be developed with recreational facilities by the State to relieve the pressure on Otter River State Forest.

Tully Dam, Connecticut River Basin.

Located in Royalston, 1,300 acres have been leased to the Massachusetts Department of Natural Resources for recreation, including hunting and fishing and forestry.

Knightsville Dam, Connecticut River Basin.

Located in Huntington, this area has no permanent pool at the present time, since the engineers claim the total capacity is required for flood conditions. The Corps of Engineers provides some picnic tables and fireplaces in the vicinity of the dam, but want to dispose of the excess land adjacent to the flowage area. The State should consider acquisition or lease in this area for hunting, fishing and hiking.

Buffumville Dam, Thames River Basin.

Located in Charlton, on the Little River, about one mile from Route 20. The Corps of Engineers is constructing this dam at the present time with intentions of providing recreational facilities including utilization of the permanent pools. If this development is constructed as planned, the State will not have to develop the proposed park adjacent to Gore Pond in Charlton.

Littleville Dam, Connecticut River Basin.

This dam on the middle branch of the Middlefield River in Chester, has not yet been authorized by the federal government, but there is no provision for a permanent pool on the existing engineering plans. This area has a good recreation potential. Cooperation between the Department of Natural Resources and the Corps of Engineers should attempt to provide for active recreation in this area.

West Hill Dam, Narragansett Bay Drainage Area.

Located on the West River and Center River in Upton. The Corps of Engineers has not decided at this time whether there will be a permanent pool in conjunction with this federally authorized dam. This should be considered for future water recreational development in this area.

East Brimfield Dam, Thames River Basin.

This is being designed at the present time. Most of the reservoir area will be on waste swampland with a few private properties involved. At present there are two existing ponds in the reservoir area. Holland Pond (65 acres) will remain as is except at flood time. The town of Holland has a beach here and wants to continue using it. Long Pond (110 acres) will become a part of the permanent pool. Consideration should be given to the recreation potentials of this project.

A P P E N D I X E .

INTERIM REPORT.

LETTER FROM THE ENGINEERS.

JANUARY 24, 1957.

MR. FRANCIS W. SARGENT, *Commissioner, Massachusetts Department of Natural Resources, 15 Ashburton Place, Boston, Massachusetts.*

DEAR COMMISSIONER SARGENT: — We herewith transmit to you our first interim report on the acquisition of land for state park purposes.

You will remember that we agreed to furnish you with such reports rather than to wait for completion of our full reports. This is because of the obvious scarcity of areas suitable for public outdoor recreation and the rapidity with which such areas are becoming still scarcer due to the rate at which they are being acquired for private development.

Sincerely yours,

EDWARDS, KELCEY and BECK.

JOSEPH W. LAVIN,
Associate.

ACQUISITION OF LAND FOR STATE PARK PURPOSES.

First Interim Report to the Massachusetts Department of Natural Resources by
Edwards, Kelcey and Beck, Boston.

Our continuing studies clearly confirm the wisdom of your decision that the first definitive phase of the study authorized by chapter 471 should concern itself with public recreation and the vacation travel industry. This decision is based on your awareness of the need to accomplish a twofold purpose, — to satisfy the mounting demand for public outdoor recreation for the residents of Massachusetts and to cultivate a potentially substantial increase in the volume of vacation travel business.

These purposes are major factors in the stabilization and healthy growth of the economy of the Commonwealth. Vacation travel is the Commonwealth's third largest source of income. Properly promoted and administered, it will provide a source of much greater income to the State and its people. The economy of the State will continue to prosper in proportion to the extent to which it remains a desirable place in which to live and work. The adequacy or inadequacy of opportunities for public outdoor recreation will have far-reaching effects on the livability of Massachusetts.

As the people have more leisure, longer vacations and more money to spend on recreation, they will be increasingly on the move, on the modernized highway systems, in search of attractive recreation and vacation spots. Massachusetts has a great advantage in its wealth of natural and historic attractions, but these are not enough in themselves. Other States are supplementing their natural advantages with modern accommodations for recreationists — their own people and those coming in from outside. If Massachusetts is to compete successfully, it must do the same.

Our studies indicate that opportunities for public outdoor recreation are insufficient to meet even the present-day need. This is because state appropriations have been insufficient in the past in spite of efforts by your Department. State parks are the logical means of assuring that outdoor recreation facilities will be available to the public. There is an immediate need for acquisition of additional areas to be incorporated into the state park system, not only

to catch up with present needs, but to take care of the prospectively greater future needs. There is need also for development of these areas and areas which are already parts of the system by installing modern accommodations. These development needs will be discussed in future reports.

The purpose of this interim report is to inform you, in accordance with our agreement with you, of specific areas we have found to be adaptable to incorporation into the state park system. We are reporting on them now, rather than later in our complete report, because the situation surrounding the acquisition of lands suitable for public recreation purposes has reached a truly critical stage. Early action is imperative if they are to be saved from development by private and commercial interests. Because of private development that has already taken place, there is already an acute shortage of available areas that are adaptable to public recreation purposes. The alarming rate at which private development is proceeding carries a serious threat of permanent loss of opportunity to acquire badly needed public recreation areas. The longer an acquisition program is delayed, the more difficult and costly it will become, possibly even in the course of a few months.

The areas listed and described below are lands that we recommend for your attention for possible acquisition for relief of the existing critical situation. We hope that this early reporting may enable you to take appropriate action either through the expenditure of capital outlay funds, purchase of lands through a third party, land exchanges or submission to the Legislature of requests for acquisition funds.

AREAS TO WHICH ATTENTION IS RECOMMENDED.

This section is presented in two parts. The first part includes areas the immediate acquisition of which we believe to be desirable to remove the possibility that early private development or acquisition by others may interfere with their acquisition by the State. The second part includes related areas to which attention might well be given in connection with the longer-range plan for consolidation and general improvement of the state park system. These areas are included because, while acquisition of them is not immediately urgent, they influence the ultimate development of the more urgently needed areas.

AREAS THE IMMEDIATE ACQUISITION OF WHICH IS RECOMMENDED.

Berkshire Hills Area.

1. *Lake Garfield in Monterey.* — Located within ten miles of the Lee Interchange of the Massachusetts turnpike, this large lake still has approximately one half mile of shore front at the base of Hunger Mountain still relatively undeveloped. The Garfield Point Associates are currently developing a portion of the northwesterly shore and are advertising that the area is only forty-five minutes from Springfield via the new turnpike.

Immediate acquisition of the area between the shore and the Hunger Mountain tract of the Beartown State Forest should be considered before further development takes place along the shore front. This area is easily reached from State Route 23 and would be an ideal location for camping, boating, hunting and swimming. The heavily wooded surroundings provide excellent opportunities for hiking and nature study. Opportunities for picnicking and other day use appear favorable.

2. *Lower Spectacle Pond in Sandisfield.* — This pond is located in an attractive setting just south of Upper Spectacle Pond in Otis State Forest. Less than twenty miles from the Lee Interchange, this area is easily accessible and in immediate danger of private development. There has, however, been little development so far and acquisition of this pond and the surrounding land would constitute an extremely desirable addition to Otis State Forest. The pond and the area around it are well suited to day use as well as to development for hunting, fishing and camping, supplementing facilities which could be provided by further development around Upper Spectacle Pond.

3. *East Indies Pond in New Marlborough.* — The secluded location of this area offers a unique opportunity to acquire a real wilderness area for hunting, fishing and camping. Having no settlement or development of any kind, and with the added asset of extensive marshlands, this area appears to be an almost ideal wildlife habitat.

This area is included here because, while it is at present undeveloped, it is on the market. It should be acquired before it is bought for private development.

4. *Goose Pond in Lee and Tyringham.* — This is one of the largest bodies of water in the Berkshires. The easterly half of the pond is

undeveloped and appears suitable for state park purposes. Located within two miles of the Lee Interchange, this area is certain to be developed in the near future. It has excellent potentials for both day use and camping.

5. *Steadman Pond in Monterey.* — This small pond within sight of the road between Tyringham and Monterey has exceptional possibilities as a small park. It is well situated for development for day use with swimming and picnicking. It could be put into service in a short time at small expense.

6. *Mill Pond in Sheffield.* — Surrounded by relatively high, flat wooded areas and some farm lands, this long, narrow body of water appears to be worth further investigation for early acquisition because of excellent potentials for both day use and camping. Little development has taken place along the shore front. The dam and sluice gate seem to be in good condition with evidence of recent repairs.

7. *Atwater Pond in Sandisfield.* — Surrounded by stately pines and other large trees and located near Sandisfield State Forest, this pond is undeveloped and the area around it unspoiled. Acquisition of this area would provide a highly desirable wilderness area ideal for camping and as the beginning of a longer range program of acquisition to tie it in with nearby areas.

8. *Yokum Pond in Becket.* — There has been little development on this pond which District Forester Dubuque feels would be a desirable addition to October Mountain State Forest. A large portion of the easterly shore is in one ownership. Located within fifteen miles of the Lee Interchange, this pond and the surrounding area may soon be developed privately. Bulkley Dunton Pond lies to the northwest. At present the dam is in need of repairs.

9. *Pelham Lake in Rowe.* — This lake is unspoiled at present. Except for a few cottages on the shore near the road, there is no other development. There is good access from Route 2 via five or six miles of good hard surface road. This area has excellent possibilities for state park purposes, but is threatened with early development by private interests.

10. *Crooked Pond and Plainfield Pond in Plainfield.* — On Route 116 southwest of Hawley State Forest, both of these ponds are practically undeveloped. A New York doctor owns about 2,000 acres south of Plainfield Pond which Mr. Dubuque believes could be bought cheaply. Facilities could be provided here for camping and day use.

11. *Taconic Trail, Williamstown Area.* — The entire Taconic Trail area is unspoiled at present. It is as scenically spectacular as the Mohawk Trail. There is immediate danger of undesirable roadside development on a 40-acre strip that is reported as being now on the market. Early action on this property is necessary to prevent the type of development that has already damaged the Mohawk Trail area.

Cape Cod Area.

1. *West Island in Fairhaven.* — Two and one half miles of unspoiled isolated beach and 350 acres of land extending out into Buzzards Bay make up the portion of West Island which is currently being offered for sale. With the advent of the new Tri-State Highway leading out of New York through Connecticut and Rhode Island to Cape Cod, the critical location of West Island will increase the possibility of further development. There are excellent potentials here for bathing, picnicking, camping and boating. This should be considered for acquisition.

2. *Sandy Neck in Barnstable and Sandwich.* — Mr. Charles McLaughlin, Director of the Division of Fish and Game, informed Mr. Lewis Carter that a portion of Sandy Neck owned by Mr. Makepeace is in danger of being lost to the State. The town of Barnstable has offered \$30,000 for the parcel, and it is rumored that a party from New Jersey has an option to buy for well over twice this amount. Apparently, the townspeople are opposed to state ownership of cape beaches because they believe that a Coney Island-type of development will result.

Mr. Cookingham, the District Manager of the Division of Fish and Game, has expressed interest in the Great Marshes adjacent to Sandy Neck. In the light of the potential use of this area for wild-life and preservation of unspoiled beauty it is imperative that action be taken to acquire this area.

3. *Spectacle Pond and Lawrence Pond in Sandwich.* — The northerly end of both of these ponds has excellent recreation possibilities, since there is very little private development. The shores are sandy and portions could be used for swimming at little cost.

The Division of Fish and Game is considering the acquisition of about 1,500 acres north of these ponds. Considering the existing state holdings made up of the Sandwich State Forest and the East Sandwich Game Farm and Fish Hatchery and the proximity of

Sandy Neck and the Great Marshes, here is a unique opportunity to provide for all types of recreation and scenic attractions in one large area.

4. *Mystic Lake, Middle Pond and Hamblin Pond in Barnstable.* — These three ponds are so closely situated that they appear to be one large pond. All three are Great Ponds. On the southerly end of Hamblin Pond is an abandoned duck farm believed to be for sale. The Division of Fish and Game is interested in acquiring a parcel on the shore of neighboring Shubael Pond. Acquisition of land around these ponds would provide excellent fresh-water bathing in an area of exceptional scenery.

RELATED AREAS FOR INCLUSION IN THE LONG-RANGE PROGRAM.

Berkshire Hills Area.

1. *Lake Garfield in Monterey.* — Land lying between the area recommended for acquisition on Lake Garfield and Otis State Forest. Acquisition of this intervening land would preserve a park-like atmosphere along the entrance roads and between the two areas. The Director of the Division of Fisheries and Game considers this acquisition of importance to fishermen.

2. *East Indies Pond, Atwater Pond and Sandisfield State Forest in New Marlborough and Sandisfield.* — The long-range plan might well consider acquisition of intervening land to tie these three areas together to form a single large wilderness area. With Atwater and East Indies Ponds providing camping, and York Lake providing day use facilities, the area would meet many recreational needs.

3. *Yokum Pond and Bulkley Dunton Pond in Becket.* — Long-range planning should provide for acquisition of land which would embrace both of these ponds for both camping and day use.

4. *Crooked Pond and Plainfield Pond in Plainfield.* — The long-range plan should consider connection of the area recommended for immediate acquisition with Hawley State Forest and the building of a dam at the beaver pond in the forest. Mr. Dubuque and Mr. Myal consider this area one of the best in the State for deer and small game.

5. *Pelham Lake in Rowe.* — The town of Rowe has been given 1,500 acres bordering on a part of the shore of this lake as a park area and game refuge. Long-range planning might well give consideration to the relationship between this area and any land the State may acquire in the neighborhood.

6. *Mohawk Trail, Florida to Western Summit.* — The scenic attraction of this portion of the trail is in critical condition because of undesirable roadside development. Long-range planning should include provision for control of roadside development to eliminate the "honky-tonk" and rural slum atmosphere. We will report on the long-range aspects of the extensive flat overlooks on the Western Summit after further study. They appear to have high potential scenic and recreational value.

7. *Taconic Trail, Williamstown Area.* — Long-range planning should include provision for preserving the natural beauty and recreational value of this highway. Prevention of undesirable roadside development by acquisition of buffer zones would be less costly now than some time later.

This interim report covers only the Berkshires and Cape Cod areas. This is not because we believe these are the only portions of the State in which critical situations exist, but because our general knowledge convinced us that these were the sections to which attention should be given first. We are still of the same opinion.

Our study confirms the fact that desirable recreation areas are being rapidly bought up by private and commercial interests. There is a real dearth of hunting and fishing lands and public swimming beaches in Berkshire County. We have also found that desirable areas are being purchased quietly by out-of-state interests, and that many have been bought in unzoned towns. This exposes unspoiled Berkshire countryside to uncontrolled development. It can safely be predicted that the opening of the Massachusetts Turnpike will bring still greater pressure on the county's capacity to provide public outdoor recreation. There is good reason to believe that the people of Berkshire County will support a well-balanced state program for public recreation rather than to allow private real estate operators to gain control adverse to the best interests of the people of the county.

With modifications, a similar situation exists on Cape Cod. Private development, disregarding natural beauty and the inherent attractiveness of the region, is proceeding with alarming rapidity without regard to public recreational needs. The overall situation is no less critical there than it is in the Berkshires.

In the hope that there may still be time to bring relief to the existing critical need for more public recreation areas, and recognizing the relationship between land acquisition and the law, we are

conducting a review of the General Laws governing the authority of the Department of Natural Resources to acquire and dispose of public lands.

There has been introduced to the 1957 Legislature as a recommendation of the Department, House Bill No. 50, which would amend section 30 and repeal section 33 of chapter 132. This is a good bill as it includes all of the best provisions of both sections and eliminates the undesirable limitations on time, price and acreage. However, section 3 of chapter 132A places upon the Department undue restrictions by limiting acquisitions in many cases to specific locations and appropriations. The projects thus authorized are frequently the pet proposals of the sponsors, and the passage of the bill is more often determined by considerations other than the merits of the project in its relation to the needs of the Commonwealth as a whole.

Without authority to take land by eminent domain, the land acquisition program of the Department is seriously handicapped. In our opinion amendment of section 3 to provide for takings by eminent domain under chapter 79 would be highly desirable. Mr. Fred Bowers, Associate Engineer, who handles land matters for the Department, concurs in this opinion. A copy of a suggested draft of such an amendment is attached. Further investigations will be made with respect to desirable legislation affecting the acquisition and administration of public recreation areas.

This Interim Report furnishes you with a list of the areas we have found so far that, for one reason or another, we believe to be especially critical. We strongly recommend early action directed toward acquisition of these areas for incorporation into the state park system. They are all well adapted to development as public recreation areas conforming to essential standards. Subsequent interim reports will provide you with information on such additional critical areas as further investigation may disclose.

JANUARY 24, 1957.

APPENDIX F.

PROPOSED LEGISLATION.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Fifty-Eight.

AN ACT RELATIVE TO THE ACQUISITION OF LANDS FOR STATE PARKS
AND RESERVATIONS.

1 *Whereas*, The deferred operation of this act would tend to
2 defeat its purpose which is to provide to the department of
3 natural resources the right to take property for certain purposes
4 by eminent domain, it is hereby declared to be an emergency
5 law, necessary for the preservation of the public health, welfare
6 and convenience.

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:*

1 Chapter 132A of the General Laws is hereby amended by
2 striking out section 3 as most recently amended by chapter 672
3 of the acts of 1955 and inserting in place thereof the following
4 section: —

5 *Section 3.* The commissioner may acquire for the common-
6 wealth by purchase, lease, or with the approval of the governor
7 and council may take by eminent domain under chapter seventy-
8 nine any lands suitable for the purposes of developing and ad-
9 vancing the recreational and natural resources of the common-
10 wealth lying outside the metropolitan parks district and may lay
11 out and maintain such lands for such purposes and erect and
12 maintain such structures and other facilities thereon as may be
13 necessary to render such lands reasonably available and acces-
14 sible therefor. The commissioner may, with approval of the

15 governor and council, sell or exchange any land acquired under
16 this section which, in his judgment, can no longer advantageously
17 be used for recreational or natural resources purposes. He may,
18 at any time, sell such wood, timber or other products of the
19 lands controlled by the division of forests and parks as the eco-
20 nomical management of said lands may require. All moneys
21 received under this section shall be paid into the state treasury.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Fifty-Eight.

AN ACT PROVIDING FOR THE DEVELOPMENT OF STATE PARKS, STATE FORESTS AND RECREATION AREAS BY THE DEPARTMENT OF NATURAL RESOURCES.

1 *Whereas*, The deferred operation of this act would tend to de-
2 feat its purpose, which is to provide an adequate system of state
3 parks and forests and recreation areas, it is hereby declared to
4 be an emergency law necessary to the preservation of the public
5 health, welfare and convenience.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. The department of natural resources, hereinafter
2 called the department, is hereby authorized and directed to es-
3 tablish a long-term program of state parks, forests and recrea-
4 tion areas substantially as proposed by a report titled "An In-
5 ventory and Plan for Development of the Natural Resources of
6 Massachusetts, Part II, Public Recreation and Vacation Travel,
7 1957," and for such purpose may improve areas now under the
8 department and acquire by purchase or otherwise or take by
9 eminent domain under chapter seventy-nine of the General
10 Laws adequate land and water areas for said facilities and ap-
11 proaches thereto.

1 SECTION 2. It is hereby declared to be the policy of the com-
2 monwealth that all such sites acquired and/or developed by the
3 department shall in so far as practicable be preserved in their
4 natural state; that they shall be in so far as possible, collectively
5 self-supporting; and that no commercial activities except those
6 essential to the quiet enjoyment of the facilities by the people
7 shall be permitted.

1 SECTION 3. The planning, construction, operation and main-
2 tenance of the facilities acquired and/or developed hereunder
3 shall be under the jurisdiction of the division of forests and

4 parks. In its preparation of plans of said facilities, the department shall have the advice and assistance of the department of public works, metropolitan district commission, department of public health and department of commerce.

1 SECTION 4. To meet the cost of the program herein authorized, which shall include all expenses incurred in laying out and constructing the same and all appurtenances thereto, the cost of purchasing additional areas either contiguous to or separate from presently owned state park or state forest park areas and all interest accruing prior to the first maturity, the state treasurer on request of the department and with the approval of the governor and council shall issue and sell at public or private sale bonds of the commonwealth, registered or with coupons attached, as he may deem best, to an amount not exceeding in the aggregate the sum of one hundred million dollars. All bonds issued by the commonwealth as aforesaid shall be designated on the face: "State park and state forest park loan," and shall be on the serial payment plan for such maximum term of years not exceeding twenty as the governor may recommend to the general court pursuant to section three of Article LXII of the Amendments to the Constitution of the commonwealth, the maturities thereof to be so arranged that the amounts payable each year, including principal and interest, shall be as nearly equal as in the opinion of the state treasurer is practicable, and shall bear interest semiannually at such rate as the state treasurer, with the approval of the governor and council, shall fix. The first maturity shall not occur until one year after the issue of the first bond hereunder.

1 SECTION 5. In its development and improvement of state park and state forest park sites, the department is hereby authorized and empowered —

4 (1) To purchase, plan, construct, provide and maintain, repair and operate recreational areas and such facilities as access roads, walkways, play fields, picnic areas, parking lots, bathhouses, swimming, diving and wading pools, baby-sitting areas, power, row and paddle boats, boathouses, docks, cafeterias and refreshment stands, fireplaces, benches, tables, chairs and shel-

10 ters, tents and tent platforms, cabins, first-aid rooms, comfort
11 stations, drinking fountains with fresh, pure water, and such
12 other facilities as the department deems necessary and desirable.

13 (2) To impose and collect such charges and fees for the use
14 of the lands, buildings, facilities and equipment enumerated in
15 subsection (1) of this section as may be necessary to defray the
16 cost of the developments herein authorized, including costs of
17 maintenance and operation and bond amortization and interest.
18 Such fees and charges may be revised from time to time as
19 deemed necessary by the department.

1 SECTION 6. All income derived from the operation of the
2 facilities hereunder shall be paid into the state treasury, and
3 shall be deemed to be generally applicable to the collective obli-
4 gations of the commonwealth imposed by this act. Nothing in
5 this act shall be construed to mean that income from a particular
6 facility must be applied to meet the obligations of that particular
7 facility. Nothing in this act shall prevent the state treasurer
8 from applying without restriction income from facilities author-
9 ized under this act to the obligations of similar facilities author-
10 ized under future acts.

1 SECTION 7. If in any year the income from the facilities es-
2 tablished under this act shall prove insufficient to meet the costs
3 hereunder the resulting deficits shall be met in the manner pre-
4 scribed in section four of chapter one hundred and thirty-two A
5 of the General Laws.

1 SECTION 8. In so far as they are not inconsistent with this
2 act the provisions of chapter one hundred and thirty-two A of
3 the General Laws shall be applicable.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Fifty-Eight.

AN ACT EXTENDING THE TIME WITHIN WHICH THE DEPARTMENT OF
NATURAL RESOURCES SHALL FILE ITS REPORT ON FORESTS AND
OTHER NATURAL RESOURCES OF THE COMMONWEALTH.

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:*

1 Chapter 471 of the acts of 1955, as most recently amended by
2 chapter 591 of the Acts of 1956, is hereby further amended by
3 striking out the last sentence of the sixth paragraph and insert-
4 ing in place thereof the following: — The department shall re-
5 port its findings and recommendations under this act from time
6 to time by filing the same, together with legislation to carry its
7 recommendations into effect, with the clerk of the house of
8 representatives, the final report, recommendations and legisla-
9 tion to be filed on or before the first Wednesday in December,
10 nineteen hundred and fifty-eight.

